

**SAN JOAQUIN VALLEY UNIFIED AIR POLLUTION CONTROL  
DISTRICT**

**TITLE V APPLICATION REVIEW  
AERA ENERGY LLC  
FACILITY # C-1121  
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*Public comments and District responses are available electronically upon request to the District*

# **Title V Application Review**

## **Heavy Oil Production**

Project #: 960819

Deemed Complete: June 30, 1997

Engineer: Paul Maragoni

Date: December 4, 2001

Facility Number: C-1121

Facility Name: AERA Energy LLC- Heavy Oil Central Oilfields

Mailing Address: PO Box 11164

Bakersfield, CA 93389-1164

phone: (661) 326-5000

Contact Name: Peggy Shue-Environmental Health & Safety Advisor Air & System

Phone: (661) 665-5689

Responsible Official: K. E. Narup

Title: Manager of Operations

### **I. PROPOSAL**

AERA Energy LLC is proposing that the initial Title V Operating Permit be issued for its existing Coalinga Oilfield source located in Fresno County. The purpose of this engineering evaluation is to identify all applicable requirements, determine if the facility will comply with those applicable requirements, and to provide the legal and factual basis for proposed permit conditions.

### **II. FACILITY LOCATION**

AERA Energy LLC is (spread out over a variety of Sections, Townships and Ranges) in the heavy oil production fields in Fresno County, California. This location is west of Interstate 5 Highway.

### **III. EQUIPMENT LISTING**

A detailed facility printout listing all permitted equipment at the facility is shown in Attachment A.

A summary of the exempt equipment categories that describe the insignificant activities or equipment at the facility not requiring a permit is shown in Attachment B. This equipment is not exempt from facility-wide requirements.

#### **IV. GENERAL PERMIT TEMPLATE USAGE**

The applicant is requesting to use the following model general permit templates:

**A. SJV-UM-0-1 Facility-Wide Umbrella General Permit Template**

The applicant has requested to utilize template SJV-UM-0-1, Umbrella General Permit Template, for the entire facility. Based on the information submitted in the Template Qualification Form, the applicant qualifies for the use of this template.

**B. SJV-BSG-17-0 Boiler or Steam Generators**

The applicant has requested to utilize template SJV-BSG-17-0, Boiler or Steam Generator, for 21 steam generators at the facility (-9-5, -10-5, -11-5, -13-5, -14-5, -15-5, -16-5, -17-6, -18-6, -19-6, -23-3 and -41-6). Based on the information submitted in the Template Qualification Form, the applicant qualifies for the use of this template.

**C. SJV-WV-1-1 Series 1 Well Vents**

The applicant has requested to utilize template SJV-WV-1-1, Series 1 Well Vents, for the two well vents at the facility (-114-1 and -116-1). Based on the information submitted in the Template Qualification Form, the applicant qualifies for the use of this template.

#### **V. SCOPE OF EPA AND PUBLIC REVIEW**

Certain segments of the proposed Operating Permit are based on model general permit templates that have been previously subject to EPA and public review. The terms and conditions from the model general permit templates are included in the proposed permit and are not subject to further EPA and public review.

For permit applications utilizing model general permit templates, public and agency comments on the District's proposed actions are limited to the applicant's eligibility for the model general permit template, applicable requirements not covered by the model general permit template, and the applicable procedural requirements for issuance of Title V Operating Permits.

The following permit conditions, including their underlying applicable requirements, originate from model general permit templates and are not subject to further EPA and public review:

Permit Units	Conditions	Template
-0-1	1 through 42	SJV-UM-0-1
-9-5, -10-5, -13-5, -14-5, -15-5 and -16-5,	15 through 24	SJV-BSG-17
-11-5	9 through 18	SJV-BSG-17
-17-6, -18-6,-19-6 and 41-6	21 through 29	SJV-BSG-17
-23-3	6 through 12	SJV-BSG-17
-114-1 and -116-1	1 through 10	SJV-WV-1-1

## VI. APPLICABLE REQUIREMENTS ADDRESSED BY GENERAL PERMIT TEMPLATES

County Rule 202, Exemptions Fresno County

District Rule 1081 Source Sampling (Amended December 17, 1992) (Non SIP replacement for Kern County Rule 108.1)<sup>1</sup>

District Rule 1100 Equipment Breakdown (Amended December 17, 1992) (Non SIP replacement for Kern County Rule 111)<sup>2</sup>

District Rule 1160 Emission Statements (Adopted November 18, 1992, 1992)<sup>2</sup>

District Rule 2010 Permits Required (Amended December 17, 1992) (Non SIP replacement for Kern County Rule 201)<sup>2</sup>

District Rule 2020 Exemptions (Amended July 21, 1994) (Non SIP replacement for Kern County Rule 202)<sup>2</sup>

District Rule 2031 Transfer of Permits (Amended December 17, 1992) (Non SIP replacement for Kern County Rule 203)<sup>2</sup>

District Rule 2040 Applications (Amended December 17, 1992) (Non SIP replacement for Kern County Rule 204)<sup>2</sup>

District Rule 2070 Standards for Granting Applications (Amended December 17, 1992) (Non SIP replacement for Kern County Rule 208)<sup>2</sup>

<sup>1</sup> Boiler, Steam Generators and Process Heater Template SJV-BSG-17-0 addressed these requirements only for permit units C-1121-9-5, -10-5, -11-5, -13-5, -14-5, -15-5, -16-5, -17-6, -18-6, -19-6, -23-3 and -41-6.

<sup>2</sup> The Umbrella General Permit Template addressed these requirements for all permit units at the facility.

District Rule 2080 Conditional Approval (Amended December 17, 1992)  
(Non SIP replacement for Kern County Rule 209)<sup>2</sup>

District Rule 2520 Federally Mandated Operating Permits Sections 9.5.1, 9.5.2, 9.6.1, 9.6.2, 9.8, 9.9.1, 9.9.2, 9.9.3, 9.9.4, 9.9.5, 9.10, 9.13.1, 9.14.1, 9.14.2, 9.17, 13.2, and 10.0 (Adopted June 15, 1995)<sup>1, 2, 3</sup>

District Rule 4101 Visible Emissions (Amended December 17, 1992) (Non SIP replacement for Kern County Rule 401)<sup>2</sup>

District Rule 4201 Particulate Matter Concentration (Amended December 17, 1992) (Non SIP replacement for Kern County Rule 404)<sup>1</sup>

District Rule 4301 Fuel Burning Equipment (Amended December 17, 1992) (Non SIP replacement for Kern County Rule 408)<sup>1</sup>

District Rule 4601 Architectural Coatings (Amended December 17, 1992)<sup>2</sup>

District Rule 4401 Steam-Enhanced Crude Oil Production Well Vents (Amended January 15, 1998)<sup>3</sup>

District Rule 4801 Sulfur Compounds (Amended December 17, 1992)<sup>2</sup>  
(Non SIP replacement for Kern County Rule 407)<sup>1</sup>

District Rule 8020 Fugitive Dust Requirements for Control of Fine Particulate Matter (PM-10) from Construction, Demolition, Excavation, and Extraction Activities (Amended April 25, 1996)<sup>2</sup>

District Rule 8030 Fugitive Dust Requirements for Control of Fine Particulate Matter (PM-10) from Handling and Storage of Bulk Materials (Amended April 25, 1996)<sup>2</sup>

District Rule 8060 Fugitive Dust Requirements for Control of Fine Particulate Matter (PM-10) from Paved and Unpaved Roads (Amended April 25, 1996)<sup>2</sup>

40 CFR Part 61 Subpart M National Emission Standard for Asbestos<sup>2</sup>

40 CFR Part 82 Subpart F Stratospheric Ozone<sup>2</sup>

## **VII. APPLICABLE REQUIREMENTS NOT ADDRESSED BY GENERAL PERMIT TEMPLATES**

District New and Modified Stationary Source Review Rule

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<sup>3</sup> Well Vent Template SJV-WV-1-1 addressed these requirements only for permit units –114-1 and –116-1.

District Rule 1081 Source Sampling (Amended December 17, 1992) (Non SIP replacement for Kern County Rule 108.1)

District Rule 2520 Federally Mandated Operating Permits - section 9.4.2 (Adopted June 15, 1995)

District Rule 4201 Particulate Matter Concentration (Amended December 17, 1992) (Non SIP replacement for Kern County Rule 404)

District Rule 4401 Steam-Enhanced Crude Oil Production Well Vents (Amended January 15, 1998)

District Rule 4623 Storage of Organic Liquids (Amended December 17, 1992)

40 CFR 60, Subpart Ka Standards of Performance for Storage Vessels for Petroleum Liquids...

40 CFR Part 60 Subpart GG Standards for Performance for Stationary Gas Turbines

40 CFR 60, Subpart XX Standards of Performance for Gasoline Bulk Terminals

PSD Permit 4-4-8, SJ77-45 Requirements

## **VIII. REQUIREMENTS NOT FEDERALLY ENFORCEABLE**

For each Title V source, the District issues a single permit that contains the Federally Enforceable requirements, as well as the District-only requirements. The District-only requirements are not a part of the Title V Operating Permit. The terms and conditions that are part of the facility's Title V permit are designated as "Federally Enforceable through the Title V Permit".

The facility is subject to the following District rules, which are not currently Federally Enforceable:

- District Rule 4102 - Nuisance (Amended December 17, 1992)
- District Rule 4305 - Boilers, Steam Generators and Process Heaters (Amended December 19, 1996)
- District Rule 4703 - Stationary Gas Turbines (Amended October 16, 1997)

For this facility, the following permit conditions are based on the rules listed above and are not Federally Enforceable through the Title V Permit:

Permit Unit	Condition	Rule
-0-1	40	4102

## **IX. COMPLIANCE**

### **A. Requirements Addressed by Model General Permit Templates**

#### **1. Facility Wide Requirements (C-1121-0-1)**

The applicant is proposing to use a general permit template to address federally applicable facility-wide requirements. Section IV of template SJV-UM-0-1 includes a demonstration of compliance for all applicable requirements. Template conditions have been added to the facility wide requirements, -0-1, as conditions 1 through 42 to assure compliance with these requirements.

#### **2. Steam Generators (C-1121-9-5, -10-5, -13-5 through 16-5)**

The applicant is proposing to use a general permit template to address federally applicable requirements for the steam generators -9-5, -10-5 and -13-5 through -16-5. Section IV of template SJV-BSG-17-0 includes a demonstration of compliance for applicable requirements. Template conditions have been added to the requirements for permit units -9-5, -10-5 and -13-5 through 16-5 as conditions 15 through 24 to assure compliance with these requirements.

- Condition 2 from the template was modified to exclude competitive fuel purchase contract prices but retain fuel quality documentation requirements.
- Condition 3 from the template was not included in the requirements of this permit unit. This condition was included as condition 4 of the facility wide conditions and would be extraneous.
- Condition 4 from the template was not included in the requirements of this permit unit. This condition was subsumed by more stringent requirements described in the permit unit conditions as condition 4 of the requirements of permit units -9-5, -10-5 and -13-5 through -16-5 and would be extraneous.

- Condition 5 from the template was not included in the requirements of permit units -9-5, -10-5 and -13-5 through -16-5. Residual oil requirements are extraneous because these units are only firing on natural gas.
- Condition 6 of the template was subsumed by more stringent requirements in condition 4 of the requirements of permit units -9-5, -10-5 and -13-5 through -16-5 and Template condition 12.
- Condition 7 of the template was made more specific to these units by listing EPA Method 6 and adding ARB Method 100 testing requirements.
- Condition 10 from the template was not included in the requirements of permit units -9-5, -10-5 and -13-5 through -16-5. Liquid fuel requirements are extraneous, because these units are only firing on natural gas.
- Condition 11 from the template was modified to delete "ASTM D240 or D2382 for liquid hydrocarbon fuels;" because these units are only fired on natural gas.
- The SOx emission requirement from condition 12 of the template was subsumed by more stringent requirements described in the permit conditions as conditions 4 of the requirements of permit units -9-5, -10-5 and -13-5 through -16-5 and would be extraneous. Diesel fuel and residual oil requirements in Template condition 12 were not included. Diesel fuel and residual oil requirements are extraneous because these units are only firing on natural gas.
- Condition 13 of the template was subsumed by more stringent requirements described in the permit conditions as condition 4 of the requirements of permit units -9-5, -10-5 and -13-5 through -16-5 and would be extraneous.
- Condition 14 from the template was not included in the requirements of permit units -9-5, -10-5 and -13-5 through -16-5. Residual and crude oil requirements are extraneous, because these units are only firing on natural gas.

### 3. Dormant Steam Generators (C-1121-11-5)

The applicant is proposing to use a general permit template to address federally applicable requirements for the steam generator -11-5. Section IV of template SJV-BSG-17-0 includes a demonstration of compliance for applicable requirements. Template conditions have been added to the requirements for this permit unit as conditions 9 through 18 to assure compliance with these requirements.



- Condition 2 from the template was modified to exclude competitive fuel purchase contract prices but retain fuel quality documentation requirements.
- Condition 3 from the template was not included in the requirements of this permit unit. This condition was included as condition 4 of the facility wide conditions and would be extraneous.
- Condition 4 from the template was not included in the requirements of this permit unit. This condition was subsumed by more stringent requirement described in the permit unit conditions as condition 8 and would be extraneous.
- Condition 5 from the template was not included in the requirements of this permit unit. Residual oil requirements are extraneous, because this unit is only firing on natural gas.
- Condition 6 of the template was subsumed by more stringent requirement in conditions 8 of the requirements of this permit unit and Template condition 12.
- Condition 7 of the template was made more specific to these units by listing EPA Method 6 and adding ARB Method 100 testing requirements
- Condition 10 from the template was not included in the requirements of this permit unit. Liquid fuel requirements are extraneous, because this unit is only firing on natural gas.
- Condition 11 from the template was modified to delete "ASTM D240 or D2382 for liquid hydrocarbon fuels," because these units are only fired on natural gas.
- The SO<sub>x</sub> emission requirement from condition 12 of the template was subsumed by more stringent requirement described in the permit conditions as conditions 8 and would be extraneous. Diesel fuel and residual oil requirements were not included in the requirements of this permit unit. Diesel fuel and residual oil requirements are extraneous, because this unit is only firing on natural gas.
- The emission requirement from condition 13 of the template was subsumed by more stringent requirement described in the permit conditions as conditions 8 and would be extraneous.
- Condition 14 from the template was not included in the requirements of this permit unit. Residual and crude oil requirements are extraneous, because this unit is only firing on natural gas.

4. Steam Generators (C-1121-17-6 through –19-6 and -41-6)

The applicant is proposing to use a general permit template to address federally applicable requirements for steam generators -17-6 through –19-6 and -41-6. Section IV of template SJV-BSG-17-0 includes a demonstration of compliance for applicable requirements. Template conditions have been added to the requirements for permit units -17-6 through –19-6 and -41-6 as conditions 21 through 29 to assure compliance with these requirements.

- Condition 2 from the template was not included in the requirements of permit units -17-6 through –19-6 and -41-6. Some wording from this condition was incorporated into the permit unit conditions as condition 5 due to overlapping requirements.
- Condition 3 from the template was not included in the requirements of this permit unit. This condition was included as condition 9 of the facility wide conditions and would be extraneous.
- Condition 4 from the template was not included in the requirements of this permit unit. This condition was subsumed by more stringent requirement described in the permit unit conditions as condition 7 of permit units -17-6 through –19-6 and -41-6 and would be extraneous.
- Condition 5 from the template was not included in the requirements of permit units -17-6 through –19-6 and -41-6. Residual oil requirements are extraneous, because these units are only firing on natural gas.
- Condition 6 from the template was subsumed by more stringent requirements in condition 6 of the requirements for permit units -17-6 through –19-6 and -41-6 and Template condition 12. Diesel fuel requirements in template condition 7 were not included in the requirements of permit units. Diesel fuel requirements are extraneous, because these units are only firing on natural gas.
- Condition 8 of the template was made more specific to the requirements of these permit units by listing EPA Method 6 and adding ARB Method 100 testing requirements
- Condition 10 from the template was not included in the requirements of permit units -17-6 through –19-6 and -41-6. Liquid fuel requirements are extraneous, because these units are only firing on natural gas.

- Condition 11 from the template was modified to delete "ASTM D240 or D2382 for liquid hydrocarbon fuels;" because these units are only fired on natural gas.
- Diesel fuel and residual oil requirements in template condition 12 were not included in the requirements of this permit unit. Diesel fuel and residual oil requirements are extraneous, because this unit is only firing on natural gas. The SOx emission requirements were subsumed by more stringent requirements in condition 7 of the requirements for permit units -17-6 through -19-6 and -41-6.
- Residual and crude oil requirements in template condition 13 were not included in the requirements of permit units -17-6 through -19-6 and -41-6. Residual and crude oil requirements are extraneous, because these units are only firing on natural gas.
- Condition 14 from the template was not included in the requirements of permit units -17-6 through -19-6 and -41-6. Residual and crude oil requirements are extraneous, because these units are only firing on natural gas.

#### 5. Heater Treater (C-1121-23-3)

The applicant is proposing to use a general permit template to address federally applicable requirements for the heater treater -23-3. Section IV of template SJV-BSG-17-0 includes a demonstration of compliance for applicable requirements. Template conditions have been added to the requirements for this permit unit as conditions 6 through 12 to assure compliance with these requirements.

- Conditions 1 and 2 from the template were addressed as conditions 6 and 7 of the requirements of this permit unit.
- Condition 3 from the template was not included in the requirements of this permit unit. This condition was included as condition 4 of the facility wide conditions and would be extraneous.
- Condition 4 from the template was not included in the requirements of this permit unit. This condition was subsumed by more stringent requirements described in the permit unit condition 5 and would be extraneous.
- Condition 5 from the template was not included in the requirements of this permit unit. Residual oil requirements are extraneous, because this unit is only firing on natural gas.

- Condition 6 from the template was subsumed by more stringent requirements in condition 5 of the requirements for this permit unit and Template condition 12.
- Condition 7 from the template was addressed as condition 2 of the requirements of this permit unit.
- Condition 8 of the template was made more specific to these units by also listing EPA Method 6, equivalent test method, double GC for H<sub>2</sub>S and mercaptans and adding ARB Method 100 testing requirements.
- Condition 9 of the template was made more specific to these units by also listing equivalent double GC for H<sub>2</sub>S and mercaptans test method.
- Condition 10 from the template was not included in the requirements of this permit unit. Liquid fuel requirements are extraneous, because this unit is only firing on natural gas.
- Condition 11 of the template was addressed as condition 7 of the requirements of this permit unit. The condition was modified to delete "ASTM D240 or D2382 for liquid hydrocarbon fuels;" because this unit is only fired on natural gas.
- Diesel fuel and residual oil requirements in template condition 12 were not included in the requirements of this permit unit. Diesel fuel and residual oil requirements are extraneous, because this unit is only firing on natural gas. The SO<sub>x</sub> emission requirements were subsumed by more stringent requirements in condition 3 of the requirements for this permit unit.
- Residual and crude oil requirements in template condition 13 were not included in the requirements of this permit unit. Residual and crude oil requirements are extraneous, because this unit is only firing on natural gas.
- Condition 14 from the template was not included in the requirements of this permit unit. Residual and crude oil requirements.

6. Well vents (C-1121-114-1 and –116-1)

The applicant is proposing to use a general permit template to address federally applicable requirements for the well vents -114-1 and –116-1. Section IV of template SJV-WV-1-1 includes a demonstration of compliance for applicable requirements. Template conditions have been added to the requirements for permit units -114-1 and –116-1 as conditions 1 through 10 to assure compliance with these requirements.

- Condition 1 from the template was not included in the requirements of these permit units. The condition is extraneous because there are no in-situ combustion wells within this distance.
- Condition 5 from the template was not included in the requirements of this permit unit. This condition was included as condition 4 of the facility wide conditions and would be extraneous.
- The exemption requirements in template condition 6, for less than 10 wells, were not included in the requirements of these permit units. The exemption is extraneous because it only applies to units with less than 10 well vents.
- Condition 7 from the template was not included in the requirements of these permit units. This condition applies to units with less than 10 cyclic wells, is extraneous.
- Condition 9 from the template was not included in the requirements of this permit unit. This condition applies to units with more than 500 wells and would be extraneous.

## **B. Requirements Not Addressed by Model General Permit Templates**

### **1. New and Modified Stationary Source Review Rule (District NSR Rule)**

#### **a. Dormant Steam Generators (C-1121-11-5)**

This unit has been identified by permit conditions as being a dormant unit. This unit was subject to the District NSR Rule at the time the applicant applied for Authority to Construct. In accordance with the White Paper for Streamlined Development of Part 70 Permit Applications, dated July 10, 1995, conditions from the resulting PTOs were addressed to define how NSR permit terms should be incorporated into the Title V permits.

- Conditions 1 and 2 from the PTO were included as conditions 2 and 3 of the requirements for this permit unit.
- Condition 3 from the PTO was included as condition 4 the requirements for this permit unit and was modified by correctly renumbering the referenced condition.

- Condition 4 from the PTO was included as condition 5 of the requirements for this permit unit and was made more stringent and modified to standardize the facility dormant fuel disconnect conditions by stating all fuel supply lines shall be physically disconnected from the unit.
- Condition 5 from the PTO was included as condition 6 of requirements for this permit unit.
- Condition 6 from the PTO was not included in the requirements for this permit unit because it was addressed by conditions 35 and 40 of the facility wide requirements.
- Condition 7 from the PTO was not included in the requirements for this permit unit because it was included as condition 40 of the facility wide requirements.
- Condition 8 from the PTO was not included in the requirements for this permit unit because it was included as condition 22 of the facility wide requirements.
- Condition 9 from the PTO was subsumed by condition 8 as a requirement for this permit unit.
- Condition 10 from the PTO was included as condition 7 of the requirements for this permit unit.
- Condition 11 from the PTO was subsumed by Template condition 2 and condition 9 of the facility wide requirements as requirements for this permit unit.
- Condition 12 from the PTO was subsumed by EPA approved monitoring, record keeping and reporting conditions 19 through 25 as requirements for this permit unit.
- Conditions 13 and 14 from the PTO were subsumed by Template condition 1 as requirements for this permit unit.
- Condition 15 from the PTO was included as condition 8 of requirements for this permit unit and made stricter to clearly indicate SO<sub>x</sub> emissions are calculated as SO<sub>2</sub> and PM<sub>10</sub> was calculated at 12% CO<sub>2</sub> per Rule 4301.
- Conditions 19 through 25 were added as requirements for this permit unit per agreement with EPA for approved standard monitoring, record keeping and reporting conditions.

b. Dormant Steam Generators (C-1121-12-5)

This unit has been identified by permit conditions as being a dormant unit. This unit was subject to the District NSR Rule at the time the applicant applied for Authority to Construct. In accordance with the White Paper for Streamlined Development of Part 70 Permit Applications, dated July 10, 1995, conditions from the resulting PTOs were addressed to define how NSR permit terms should be incorporated into the Title V permits.

- Condition 1 from the PTO was included as condition 2 of the requirements for this permit unit.
- Condition 2 from the PTO was included as condition 3 the requirements for this permit unit and was modified by correctly renumbering the referenced condition.
- Condition 3 from the PTO was included as condition 4 of the requirements for this permit unit and was made more stringent and modified to standardize the facility dormant fuel disconnect conditions by stating all fuel supply lines shall be physically disconnected from the unit.
- Condition 4 from the PTO was included as condition 5 of requirements for this permit unit.
- Condition 5 from the PTO was included as condition 6 of the requirements for this permit unit.
- Conditions 6 and 7 from the PTO were included as conditions 7 and 8 of the requirement for this permit unit.
- Condition 8 from the PTO was subsumed by condition 11 of the requirements for this permit unit and condition 9 of the facility wide requirements as requirements for this permit unit.
- Condition 9 from the PTO was subsumed by EPA approved monitoring, record keeping and reporting requirement as condition 23 of the requirements for this permit unit.
- Conditions 10 and 11 from the PTO were subsumed by condition 10 as requirements for this permit unit.
- Condition 12 from the PTO was included as condition 9 of requirements for this permit unit and made stricter to clearly indicate SO<sub>x</sub> emissions are calculated as SO<sub>2</sub> and PM<sub>10</sub> was calculated at 12% CO<sub>2</sub> per Rule 4301.
- Conditions 19 through 25 were added as requirements for this permit unit per agreement with EPA for approved standard monitoring, record keeping and reporting conditions.

c. Steam Generator (C-1121-9-5)

This unit was subject to the District NSR Rule at the time the applicant applied for Authority to Construct. In accordance with the White Paper for Streamlined Development of Part 70 Permit Applications, dated July 10, 1995, conditions from the resulting PTO was addressed to define how NSR permit terms should be incorporated into the Title V permits.

- Condition 1 from the PTO was not included in the requirements for this permit unit because it was included as condition 40 of the facility wide requirements.
- Condition 2 from the PTO was not included in the requirements for this permit unit because it was included as condition 22 of the facility wide requirements.
- Condition 3 from the PTO was subsumed by condition 4 as a requirement for this permit unit and would be extraneous.
- Conditions 4 and 5 from the PTO were included as conditions 1 and 2 of requirements for this permit unit.
- Condition 6 from the PTO was not included in the requirements for this permit unit because it was subsumed by Template condition 2 and condition 9 of the facility wide requirements.
- Condition 7 from PTO was included as conditions 3 requirements for this permit unit.
- Condition 8 from the PTOs was included as condition 4 of the requirements for these permit units and made stricter to clearly indicate PM<sub>10</sub> was calculated at 12% CO<sub>2</sub> per Rule 4301.
- Conditions 9 through 12 from the PTO were included as conditions 5 through 8 of requirements for this permit unit without change.
- Condition 13 from the PTOs was included as condition 9 of the requirements for these permit units and allowed the option to shutdown within one hour if the FGR valve position is not in compliance.
- Conditions 14 and 15 from the PTO were included as conditions 10 through 11 of requirements for this permit unit without change.
- Condition 16 from the PTO was subsumed by EPA approved monitoring, record keeping and reporting requirements as condition 31 of the requirements for this permit unit.



- Condition 17 from the PTO was subsumed by EPA approved monitoring, record keeping and reporting requirements as condition 25 of the requirements for this permit unit.
- Conditions 18 and 19 from the PTO were included as conditions 12 and 13 of requirements for this permit unit without change. They are stricter than the EPA approved monitoring, record keeping and reporting conditions by requiring two consecutive compliant annual tests.
- Condition 20 from the PTO was subsumed by EPA approved monitoring, record keeping and reporting conditions 28 through 30 as requirements for this permit unit.
- Condition 21 from PTO was included as condition 14 requirements for this permit unit.
- Condition 22 from PTO was subsumed by EPA approved monitoring, record keeping and reporting requirements as condition 25 of the requirements for this permit unit.
- Conditions 23 and 24 from the PTO were subsumed by Template condition 1 as requirements for this permit unit.

d. Steam Generator (C-1121-10-5 and -13-5 through –16-5)

These units were subject to the District NSR Rule at the time the applicant applied for Authority to Construct. In accordance with the White Paper for Streamlined Development of Part 70 Permit Applications, dated July 10, 1995, conditions from the resulting PTOs were addressed to define how NSR permit terms should be incorporated into the Title V permits.

- Condition 1 from the PTO was not included in the requirements for these permit units because it was included as condition 40 of the facility wide requirements.
- Condition 2 from the PTO was not included in the requirements for these permit units because it was included as condition 22 of the facility wide requirements.
- Condition 3 from the PTO was subsumed by condition 4 as a requirement for these permit units.
- Conditions 4 and 5 from the PTO were included as conditions 1 and 2 of requirements for these permit units.
- Condition 6 from the PTO was not included in the requirements for these permit units because it was subsumed by Template condition 2 and condition 9 of the facility wide requirements.

- Condition 7 from the PTO was included as condition 3 of requirements for these permit units.
- Condition 8 from the PTO was included as condition 4 of requirements for these permit units and made stricter to clearly indicate PM<sub>10</sub> was calculated at 12% CO<sub>2</sub> per Rule 4301.
- Conditions 9 through 12 from the PTO were included as conditions 5 through 8 of requirements for these permit units.
- Condition 13 from the PTOs was included as condition 9 of the requirements for these permit units and allowed the option to shutdown within one hour if the FGR valve position is not in compliance.
- Conditions 14 and 15 from the PTO were included as conditions 10 and 11 of requirements for these permit units.
- Condition 16 from the PTO was subsumed by EPA approved monitoring, record keeping and reporting requirements as condition 31 of the requirements for these permit units.
- Condition 17 from the PTO was subsumed by EPA approved monitoring, record keeping and reporting requirements as condition 25 of the requirements for these permit units.
- Conditions 18 and 19 from the PTO were included as conditions 12 and 13 of requirements for these permit units. They are stricter than the EPA approved monitoring, record keeping and reporting conditions by requiring two consecutive compliant annual tests.
- Condition 20 from the PTO was subsumed by EPA approved monitoring, record keeping and reporting conditions 28 through 30 as requirements for these permit units.
- Condition 21 from PTO was included as condition 14 requirements for these permit units.
- Condition 22 from PTO was subsumed by EPA approved monitoring, record keeping and reporting requirements as condition 25 of the requirements for these permit units.
- Conditions 23 and 24 from the PTO were subsumed by Template condition 1 as requirements for these permit units.

e. Steam Generators (C-1121-17-6 through –19-6 and –41-6)

These units were subject to the District NSR Rule at the time the applicant applied for Authority to Construct. In accordance with the White Paper for Streamlined Development of Part 70 Permit Applications, dated July 10, 1995, conditions from the resulting PTOs were addressed to define how NSR permit terms should be incorporated into the Title V permits.

- Condition 1 from the PTOs was not included in the requirements for these permit units because it was included as condition 40 of the facility wide requirements.
- Condition 2 from the PTOs was not included in the requirements for these permit units because it was included as condition 22 of the facility wide requirements.
- Condition 3 from the PTOs was subsumed by condition 7 of the requirements for this permit unit and made stricter to clearly indicate  $PM_{10}$  was calculated at 12%  $CO_2$  per Rule 4301 and 4305.
- Conditions 4 through 7 from the PTOs were included as conditions 1 through 4 of requirements for these permit units.
- Condition 8 from the PTOs was included as condition 5 of the requirements for these permit units and condition 9 of the facility wide requirements.
- Condition 9 from the PTOs was included as condition 6 of the requirements for these permit units.
- Condition 10 from the PTOs was included as condition 7 of the requirements for these permit units and made stricter to clearly indicate  $NO_x$  was calculated as  $NO_2$  at 3%  $O_2$  and  $SO_x$  was calculated as  $SO_2$  per Rule 4301 and 4305.
- Conditions 11 through 16 from the PTOs were included as conditions 8 through 13 of requirements for these permit units.
- Condition 17 from the PTOs was included as condition 5 of the requirements for these permit units and condition 9 of the facility wide requirements.
- Condition 18 from the PTOs was included as condition 14 of requirements for these permit units.
- Condition 19 from the PTOs was included as condition 15 of the requirements for these permit units and allowed the option to shutdown within one hour if the FGR valve position is not in compliance.

- Condition 20 from the PTOs was included as condition 16 of the requirements for these permit units and condition 9 of the facility wide requirements.
- Condition 21 from the PTOs was included as condition 17 of the requirements for these permit units.
- Conditions 22 from the PTOs was subsumed by EPA approved monitoring, record keeping and reporting as condition 36 of the requirements for these permit units.
- Condition 23 from the PTOs was subsumed by EPA approved monitoring, record keeping and reporting condition 30 as requirements for these permit units.
- Conditions 24 and 25 from the PTOs were included as conditions 18 and 19 of requirements for these permit units. They are stricter than the EPA approved monitoring, record keeping and reporting conditions by requiring two consecutive compliant annual tests.
- Condition 26 from the PTOs was subsumed by EPA approved monitoring, record keeping and reporting conditions 32 through 34 as requirements for these permit units.
- Condition 27 from the PTOs was included as condition 20 requirements for these permit units.
- Condition 28 from the PTOs was subsumed by Template condition 11 as requirements for these permit units.
- Condition 29 from the PTOs was subsumed by EPA approved monitoring, record keeping and reporting and combined with “sample collection by ARB certified testing laboratory” requirement as condition 30 of the requirements for these permit units.
- Conditions 30 and 31 from the PTOs were subsumed by Template condition 1 as requirements for these permit units.

f. Heater Treater (C-1121-22-3)

These units were subject to the District NSR Rule at the time the applicant applied for Authority to Construct. In accordance with the White Paper for Streamlined Development of Part 70 Permit Applications, dated July 10, 1995, conditions from the resulting PTOs were addressed to define how NSR permit terms should be incorporated into the Title V permits.

- Conditions 1 through 2 from the PTO were included as conditions 1 through 2 of the requirements for this permit unit.

- Conditions 3 and 4 from the PTO were included as conditions 3 and 4 and were merged with the standard language of Template SJV-BSG-22, conditions 8 and 9 as requirements for this permit unit.
- Condition 5 from the PTO was included as condition 5 of the requirement for this permit unit and made stricter to clearly indicate NO<sub>x</sub> emissions are calculated as NO<sub>2</sub>, SO<sub>x</sub> emissions are calculated as SO<sub>2</sub> and PM<sub>10</sub> was calculated at 12% CO<sub>2</sub> per Rule 4301 and 4305.
- Condition 6 from the PTO was subsumed by condition 6 as a requirement for this permit unit and by condition 9 of the facility wide requirements.

g. Heater Treater (C-1121-23-3)

These units were subject to the District NSR Rule at the time the applicant applied for Authority to Construct. In accordance with the White Paper for Streamlined Development of Part 70 Permit Applications, dated July 10, 1995, conditions from the resulting PTOs were addressed to define how NSR permit terms should be incorporated into the Title V permits.

- Conditions 1 through 2 from the PTO were included as conditions 1 through 2 of the requirements for this permit unit.
- Conditions 3 and 4 from the PTO were included as conditions 3 and 4 and were merged with the standard language of Template SJV-BSG-22, conditions 8 and 9 as requirements for this permit unit.
- Condition 5 from the PTO was included as condition 5 of the requirement for this permit unit and made stricter to clearly indicate NO<sub>x</sub> emissions are calculated as NO<sub>2</sub>, SO<sub>x</sub> emissions are calculated as SO<sub>2</sub> and PM<sub>10</sub> was calculated at 12% CO<sub>2</sub> per Rule 4301 and 4305.
- Condition 6 from the PTO was subsumed by Template condition 2 and condition 9 of the facility wide requirements as requirements for this permit unit.

h. Heater Treaters (C-1121-24-1 through 26-1)

These units were subject to the District NSR Rule at the time the applicant applied for Authority to Construct. In accordance with the White Paper for Streamlined Development of Part 70 Permit Applications, dated July 10, 1995, conditions from the resulting PTOs were addressed to define how NSR permit terms should be incorporated into the Title V permits.

- Condition 1 from the PTOs was included as conditions 1 of requirements for these permit units.
- Condition 2 provided record keeping and was not included in the requirements for this permit unit because condition 4 was more specific and condition 9 of the facility wide conditions are more stringent to require maintaining records for five years in order to conform to Rule 2520, section 9.5.2.
- Condition 3 from the PTOs was included as condition 2 of requirements for this permit unit and made stricter to clearly indicate NO<sub>x</sub> emissions are calculated as NO<sub>2</sub>, SO<sub>x</sub> emissions are calculated as SO<sub>2</sub> and PM<sub>10</sub> was calculated at 12% CO<sub>2</sub> per Rule 4301 and 4305.

i. Cogeneration Gas Turbines (C-1121-33-2 and –34-2)

These units were subject to the District NSR Rule at the time the applicant applied for Authority to Construct. In accordance with the White Paper for Streamlined Development of Part 70 Permit Applications, dated July 10, 1995, conditions from the resulting PTOs were addressed to define how NSR permit terms should be incorporated into the Title V permits.

- Condition 1 from the PTO was included as condition 1 of the requirements for these permit units.
- Condition 2 from the PTO was addressed by condition 17 of the requirements for these permit units modeled after Template SJV-GT-7a, condition 19.

- Condition 3 from the PTO was split into two conditions as requested by the applicant to standardize fuel consumption record keeping requirements. The first addressed by the more stringent condition 11 of the requirements for these permit units, modeled after Template SJV-BSG-17 condition 2. The second addressed by the more stringent condition 12 of the requirements for these permit units, modeled after Template SJV-GT-7a condition 14. The retention time was subsumed by condition 9 of the facility wide conditions.
- Condition 4 from the PTO was subsumed by the more stringent condition 9 of the facility wide conditions as the requirement for these permit units.
- Conditions 5 through 10 from PTOs were included as conditions 2 through 7 of requirements for these permit units.

j. Diatomaceous Earth Silo (C-1121-36-1)

This permit unit was subject to the District NSR Rule at the time the applicant applied for Authority to Construct. In accordance with the White Paper for Streamlined Development of Part 70 Permit Applications, dated July 10, 1995, conditions from the resulting PTO were addressed to define how NSR permit terms should be incorporated into the Title V permits.

- Condition 1 from the PTO was included as condition 1 of requirements for this permit unit.

k. Precoat Tank (C-1121-37-1)

This permit unit was not subject to the District NSR Rule at the time it was installed. The unit was issued In-house Permits to Operate (PTO) as existing equipment.

- Condition 1 from the PTO was not included in the requirements for this permit unit because it was included as condition 40 of the facility wide requirements.

I. Casing Vapor Recovery (C-1121-38-2 and –39-2)

These units were subject to the District NSR Rule at the time the applicant applied for Authority to Construct. In accordance with the White Paper for Streamlined Development of Part 70 Permit Applications, dated July 10, 1995, conditions from the resulting PTOs were addressed to define how NSR permit terms should be incorporated into the Title V permits.

- Condition 1 from the PTO was subsumed by condition 22 of the facility wide conditions.
- Condition 2 from the PTO was addressed in the requirements for these permit units by condition 12 and was made more stringent by using the standard language in condition 16 of Template SJV-WV-1-1.
- Condition 3 from the PTO was addressed in the requirements for these permit units by conditions 8 and 11 and was made more stringent by using the standard language in conditions 8 and 12 of Template SJV-WV-1-1.
- Condition 4 from the PTO was addressed in the requirements for these permit units by conditions 9 and 10 using the standard language in conditions 10 and 11 of Template SJV-WV-1-1.
- Condition 5 from the PTO was included in the requirements for these permit units as condition 1 and the condition was made stricter by adding the words “and which well casing vents are shut-in” at the end of the first sentence. This was requested by EPA in review comments to monitor possible emissions from down-line storage tanks without vapor recovery.
- Conditions 6 through 8 from the PTO were included in the requirements for these permit units as conditions 2 through 4.
- Condition 9 from PTO was included in the requirements for these permit units as condition 5. The retention time was subsumed by condition 9 of the facility wide conditions.

m. Storage Tanks with Vapor Control (C-1121-45-2)

This unit was subject to the District NSR Rule at the time the applicant applied for Authority to Construct. ATC C-1121-45-3 was issued on September 9, 2000.



- Conditions 1 and 2 from the ATC were included in the requirements for this permit unit as conditions 1 and 2.
- Conditions 3 and 4 from the ATC were included as conditions 3 and 4 of the requirements for this permit unit. They were made more stringent by using the standard language in condition 2 and 3 of Template SJV-TK-4-0.
- Condition 5 from the ATC was included in the requirements for this permit unit as condition 5.
- Condition 6 from the ATC was included as condition 6 of the requirements for this permit unit but the record keeping retention requirement was subsumed by condition 9 of the facility wide conditions.
- Condition 7 from the ATC was included as condition 7 of the requirements for this permit unit.

n. Storage Tanks with Vapor Control (C-1121-46-1)

This unit was subject to the District NSR Rule at the time the applicant applied for Authority to Construct. In accordance with the White Paper for Streamlined Development of Part 70 Permit Applications, dated July 10, 1995, conditions from the resulting PTO were addressed to define how NSR permit terms should be incorporated into the Title V permits.

- Conditions 1 and 2 from the PTO were included in the requirements for this permit unit as conditions 6 and 7. They were made more stringent by modeling condition 2 and 3 of Template SJV-TK-4-0.
- Conditions 3 through 7 from the PTO were included in the requirements for this permit unit as conditions 1 through 5 but the record keeping retention requirement in condition 5 was subsumed by condition 9 of the facility wide conditions.

o. Storage Tanks with Vapor Control (C-1121-72-1 and 73-1)

These units were subject to the District NSR Rule at the time the applicant applied for Authority to Construct. In accordance with the White Paper for Streamlined Development of Part 70 Permit Applications, dated July 10, 1995, conditions from the resulting PTO were addressed to define how NSR permit terms should be incorporated into the Title V permits.

- Condition 1 from the PTO referenced the applicable facility wide conditions. Condition 1 from the facility wide condition was moved to condition 1 of the requirements for this permit unit.

p. Storage Tanks (C-1121-74-1 through –78-1)

These permit units were not subject to the District NSR Rule at the time they were installed. These units were issued In-house Permits to Operate (PTO's) as existing equipment.

- Condition 1 from the PTO was included as condition 2 of the requirements for this permit unit but the record keeping retention requirement was subsumed by condition 9 of the facility wide conditions.

q. Storage Tank with Vapor Control (C-1121-79-1)

This unit was subject to the District NSR Rule at the time the applicant applied for Authority to Construct. In accordance with the White Paper for Streamlined Development of Part 70 Permit Applications, dated July 10, 1995, conditions from the resulting PTO were addressed to define how NSR permit terms should be incorporated into the Title V permits.

- Condition 1 from the PTO was included as condition 1 of requirements for this permit unit but the record keeping retention requirement was subsumed by condition 9 of the facility wide conditions.
- Conditions 2 and 3 from the PTO were included in the requirements for this permit unit as conditions 3 and 4. It was made more stringent by using the standard language in condition 2 and 3 of Template SJV-TK-4-0.
- Condition 4 from the PTO was included as conditions 2 in the requirements for this permit unit.

r. Storage Tanks (C-1121-82-1 through –87-1)

These units were subject to the District NSR Rule at the time the applicant applied for Authority to Construct. In accordance with the White Paper for Streamlined Development of Part 70 Permit Applications, dated July 10, 1995, conditions from the resulting PTOs were addressed to define how NSR permit terms should be incorporated into the Title V permits.

- Conditions 1 through 3 from the PTOs were included as conditions 1 through 3 in the requirements for these permit units.

s. Storage Tanks (C-1121-88-1 through -91-1)

These units were subject to the District NSR Rule at the time the applicant applied for Authority to Construct. In accordance with the White Paper for Streamlined Development of Part 70 Permit Applications, dated July 10, 1995, conditions from the resulting PTOs were addressed to define how NSR permit terms should be incorporated into the Title V permits.

- Conditions 1 and 2 from the PTOs were included as conditions 1 and 2 in the requirements for these permit units

t. Uncontrolled Cyclic Steam Drive Wells (C-1121-93-1)

This permit unit was not subject to the District NSR Rule at the time it was installed. The unit was issued In-house Permits to Operate (PTO) as existing equipment.

- Conditions 1 and 2 from the PTOs were included as conditions 1 and 2 in the requirements for this permit unit.

u. Steam Generators (C-1121-100-5, -101-5, -105-5, -106-5)

These units were subject to the District NSR Rule at the time the applicant applied for Authority to Construct. In accordance with the White Paper for Streamlined Development of Part 70 Permit Applications, dated July 10, 1995, conditions from the resulting PTOs were addressed to define how NSR permit terms should be incorporated into the Title V permits.

- Conditions 1 and 2 from PTOs were included as conditions 1 and 2 of the requirements for these permit units.
- Conditions 3 and 4 from PTOs were included as conditions 3 and 4 of the requirements for these permit units and made stricter to clearly indicate PM<sub>10</sub> was calculated at 12% CO<sub>2</sub> per Rule 4301 and 4305.
- Condition 5 from PTOs was included as condition 5 of the requirements for these permit units.

- Condition 6 from PTOs was included as conditions 7, 12 and 13 of the requirements for these permit units. It was made more stringent by modeling condition 2 of Template SJV-BSG-17-0 and the record keeping requirement was subsumed by conditions 9 of the facility wide conditions.

v. Vapor Recovery Plants (C-1121-114-1 and -116-1)

These permit units were not subject to the District NSR Rule at the time they were installed. The unit was issued In-house Permits to Operate (PTO's) as existing equipment.

- Condition 1 from PTOs -114-0 and -116-0 provided collection efficiency requirements and was subsumed by condition 6 of Template SJV-WV-1-1 as the requirements for these permit units.
- Condition 2 from PTOs -114-0 and -116-0 was subsumed by conditions 10 through 13 of Template SJV-WV-1-1 as the requirements for these permit units.
- Condition 3 from PTOs -114-0 and -116-0 provided record keeping requirements and was subsumed by condition 4 of Template SJV-WV-1-1 and by condition 9 of the facility wide conditions as the requirements for these permit units. The condition was made stricter by adding the words "and which well casing vents are shut-in" at the end of the first sentence. This was requested by EPA in review comments to monitor possible emissions from down-line storage tanks without vapor recovery.

w. Vapor Recovery Plants (C-1121-115-1)

This permit unit was not subject to the District NSR Rule at the time they were installed and is not steam enhanced. The unit was issued In-house Permits to Operate (PTO's) as existing equipment.

- Condition 1 from the PTO -115-0 provided collection efficiency requirements and was included as condition 1 of the requirements for this permit unit
- Condition 2 from the PTO -115-0 was addressed by conditions 6 through 8 and 11 and made stricter by modeling conditions 10 through 12 and 16 of Template SJV-WV-1-1 as the requirements for this permit unit.

- Condition 3 from the PTO -115-0 provided record keeping requirements and was addressed by condition 4 and made stricter by modeling condition 4 of Template SJV-WV-1-1 and by condition 9 of the facility wide conditions as the requirements for these permit units. The condition was made stricter by adding the words “and which well casing vents are shut-in” at the end of the first sentence. This was requested by EPA in review comments to monitor possible emissions from down-line storage tanks without vapor recovery.
- x. Storage Tanks (C-1121-117-1, -119-1, -123-1, -124-1, -125-1, -128-1, -131-1 through -140-1, -142-1 through -145-1, -147-1, -149-1 through -150-1, -154-1, -155-1, -157-1 through -160-1)

These permit units were not subject to the District NSR Rule at the time they were installed. The units were issued In-house Permits to Operate (PTOs) as existing equipment. The units were required to be permitted when the District lowered the exemption level for oil storage containers in Rule 2020 to 100 bbl. The equipment description for permit unit -140-1-0 was administratively corrected to reflect the actual tank capacity of 1000 barrels.

- y. Storage Tanks (C-1121-161-1 and 163-1, -164-1, -166-1)

These units were subject to the District NSR Rule at the time the applicant applied for Authority to Construct. In accordance with the White Paper for Streamlined Development of Part 70 Permit Applications, dated July 10, 1995, conditions from the resulting ATCs were addressed to define how NSR permit terms should be incorporated into the Title V permits. The equipment description for permit unit -161-1 was administratively corrected to reflect the actual tank purpose from crude oil storage to a wash tank.

- Condition 1 from the PTO was included as condition 1 in the requirements for these permit units.
- Condition 2 of the PTO was included as condition 2 of the requirements for these permit units but the record retention requirement was subsumed by condition 9 of the facility wide conditions.

z. Storage Tanks (C-1121-162-1)

This unit was subject to the District NSR Rule at the time the applicant applied for Authority to Construct. In accordance with the White Paper for Streamlined Development of Part 70 Permit Applications, dated July 10, 1995, conditions from the resulting PTO was addressed to define how NSR permit terms should be incorporated into the Title V permits.

- Conditions 1 and 2 from the PTO were included as conditions 1 and 2 in the requirements for this permit unit.
- Condition 3 of the PTO was included as condition 3 of the requirements for this permit unit but the record keeping retention was subsumed by condition 9 of the facility wide conditions.

**2. District Rule 1081 - Source Sampling**

- a. Steam Generator (-12-4)
- b. Heater Treaters (-24-1 through -26-1)
- c. Cogeneration Gas Turbines (-33-2 and -34-2)
- d. Vapor Recovery System (-115-1)
- e. Steam Generator (-100-5, -101-5, -105-5 and -106-5)

Section 3.0 presents the requirements for sampling facilities including sampling ports, platforms, and access to sampling platforms.

Section 5.0 requires that test methods used be in accord with 40 CFR Part 60 Appendix A. Source tests at the facility will continue to meet federal and District requirements.

Section 6.0 requires that for the purpose of determining compliance with an applicable standard or numerical limitation, the numerical mean of three test runs shall be used, except when two of the three test runs are above the applicable limit. Compliance test results have been based on three sampling runs. Compliance with this rule will continue during the permit term and results/methods will be shown in submittals to the District.

Section 7.0 requires that the District be notified 30 days prior to source testing and that a compliance plan be submitted 15 days in advance of testing. District personnel shall witness testing and source test reports must be submitted within 60 days of completion of field-testing.

District Rule 1081 has been submitted to the EPA to replace Fresno County APCD Rule 110. The requirements of these rules are compared in Table 1, showing that the District rule is at least as stringent as the County rule.

Table 1 - Comparison of District Rule 1081 and Fresno County Rule 110

Requirements	District Rule	FCAPCD Rule
Upon request of the APCO, the source shall provide information and records to enable the APCO to determine when a representative sample can be taken.	X	X
The facility shall collect, have collected or allow the APCO to collect a source sample.	X	X
The source shall have District personnel present at a source test.	X	
The applicable test method, if not specified in the rule, shall be in accordance with 40 CFR 60, Appendix A.	X	
Test procedures: 1) arithmetic mean of three runs 2) a scheduled source test may not be discontinued solely due to the failure to meet the applicable standard(s), an 3) arithmetic mean of two runs is acceptable if circumstances beyond owner or operator control occurs.	X	

Permit conditions have been added to ensure compliance with the emission limits of this rule. The Permit conditions listed below for each of these units assures that all Title V requirements will be addressed for each unit prior to operation.

Permit Unit	Conditions
-12-4	10
-24-1 through -26-1	3
-33-2 and -34-2	7
-100-5, -101-5, -105-5 and -106-6	6
-115-1	3

### 3. District Rule 2520 - Federally Mandated Operation Permits

#### a. Steam Generators and Heater Treaters (-11-5, -12-4)

Section 9.0 of the rule identifies permit content requirements for active permit units. The following permits units have been identified as “dormant”, or not currently allowed to operate, by conditions on the Permit to Operate. The permit condition listed below for each of these units was added to assure that all Title V requirements will be addressed for each unit prior to operation.

Permit Unit	Conditions
-11-3, -12-4	1

- b. Steam Generator (-12-4)
- c. Steam Generator (-22-3)
- d. Heater Treaters (-24-1 through -26-1)
- e. Cogeneration Gas Turbines (-33-2 and -34-2)
- f. Diatomaceous Earth Silo (-36-1)
- g. Precoat Tank (-37-1)
- h. Vapor Recovery System (-38-2, -39-2 and -115-1)
- i. Crude Oil Storage Tanks (-45-1, -46-1, -74-1 through -79-1, -82-1 through -85-1, -87-1, -117-1, -119-1, -123-1, -124-1, -125-1, -128-1, -131-1 through -140-1, -142-1 through -145-1, -147-1, -149-1 through -150-1, -154-1, -155-1, -157-1 through -160-1)
- j. Steam Generator (-100-5, -101-5, 105-5 and -106-5)

Section 9.4.2 of the rule requires that periodic monitoring be performed if none is associated with a given emission limit to assure compliance. The table above lists the permit conditions for this requirement.



Permit Unit	Conditions
-12-4	11 through 18 and 20 through 23
-22-3	2 through 4, 6 through 8
-23-3	2 through 4, 7 through 9
-24-1 through -26-1	4 through 9
-33-2 and -34-2	11
-36-1	3 and 4
-37-1	2, 3 and 4
-38-2 and -39-2	12
-45-2	6, 8 through 14 and 19
-46-1, -82-1 through -85-1, -87-1	3
-79-1	1
-74-1 through -78-1	2 through 5
-100-4, 101-5, 105-5 and -106-5	7 through 16
-115-1	1, 2, 4 through 11
-117-1, -119-1, -123-1, -124-1, -125-1, -128-1, -131-1 through -140-1, -142-1 through -145-1, -147-1, -149-1 through -150-1, -154-1, -155-1, -157-1 through -160-1	1 through 3
-161-1 -163-1, -164-1, -166-1	1, 3 through 5
-162-1	4 through 6

Sections 9.5.1 and 9.5.2 contains requirements to incorporate all applicable record keeping requirements into the Operating Permit, specific records of any required monitoring, and the retention of all required monitoring data and support information for five years. The requirements to keep specific monitoring records and retain records for five years are stated in facility wide condition 9.

Section 13.2 of the rule provides permit shield provisions and is in the following permit conditions:

Permit Unit	Conditions
-23-2	10 through 12
-33-2, -34-2	13 through 16
-36-1	6
-37-1	5 and 6
-38-2 and -39-2	13 and 14
-45-2	20 through 22
-46-1	8 through 10
-72-1 and -73-1	3
-79-1	5 and 6
-74-1 through -78-1	6 through 8
-82-1 through -87-1	4 through 6
-88-1 through -91-1	3 through 5
-115-1	12
-117-1, -119-1, -123-1, -124-1, -125-1, -128-1, -131-1 through -140-1, -142-1 through -145-1, -147-1, -149-1 through -150-1, -154-1, -155-1, -157-1 through -160-1	4 through 7
-162-1	7 through 10
-161-1, -163-1 through -166-1	6 through 9

**4. County Rule 404, District Rule 4201, 3.1 – Particulate Matter Concentration and Rule 4301, 5.1 and 5.2.3 – Fuel Burning Equipment**

EPA issued a relative stringency finding, dated August 20, 1996, stating that District Rule 4201 is more stringent than SIP approved Fresno County Rule 404. Section 3.1 of District Rule 4201 requires emissions to be at or below 0.1 grains of particulate matter, per dry standard cubic foot of exhaust gas.

- a. Steam Generators and Heater Treaters (S-1121-9-5, -10-5, 11-5, -12-4, -13-5 through -16-5, -17-6 through -19-6, -22-3, -23-3, -41-6, -100-2, -101-2, -105-2 and -106-2)

The following equations demonstrate that the emissions of PM are expected to be well below applicable limits. Except for dormant unit -12-4 and de-rated permit units -22-3, -100-5, -101-5, -105-5 and -106-5, Template SJV-BSG-17 was applied as requested by the applicant. Existing permit conditions subsumed certain of the template conditions.

The daily emission limit (DEL) for these permits are all less than the equivalent maximum limit imposed by these District rules and therefore subsume the specific Template condition 4.

These rules contain limits on emissions of particulate matter (PM). The following streamlining analysis shows that the existing daily emission limits in the form of PM emission factors and combined template requirements are as stringent as District Rules 4301 and 4201. The streamlining procedures, as documented in the following steps, are used to substitute the proposed set of PM requirements for the otherwise applicable requirements including certain subsumed conditions in Template SJV-BSG-17.

The calculations will demonstrate the worst case scenario without comparing each existing permit emission limit condition for all relevant permit units. However the applicable condition number will be listed in a table at the end of these calculations.

**Step 1. Side-by-side Comparison of Applicable Requirements:**

PM			
CITATION:	District Rule 4201	District Rule 4301	Proposed Requirements
WORK PRACTICE STANDARDS:	•None	•None	•None
EMISSION LIMIT:	•0.1 grain/cf, at dry standard conditions [4201, 3.1]	•0.1 grain/cf, calculated to 12% CO <sub>2</sub> at dry standard conditions [4301, 5.1] •10 lb/hr [4301, 5.2.3]	•0.1 grain/dscf [4201, 3.1] → DEL Limit •0.1 grain/cf, calculated to 12% CO <sub>2</sub> at dry standard conditions [4301, 5.1] → DEL Limit •10 lb/hr [4301, 5.2.3] → DEL Limit
MONITORING:	•None	•None	•Source testing when firing on residual oil (including crude) within 60 days of said firing [2520, 9.4.2]
RECORDKEEPING:	•None	•None	•Record daily amount of all fuels combusted, the dates on which firing on any fuel other than certified gaseous or diesel fuel has occurred, as well as the type of non-certified fuel fired [2520, 9.4.2]
REPORTING:	•None	•None	•None
TEST METHODS:	•Particulate matter concentration - EPA Method 5 [4201, 4.1] •Stack gas velocity - EPA Method 2 [4201, 4.2] •Stack gas moisture - EPA Method 4 [4201, 4.3]	•Particulate matter concentration – EPA Method 5 [4301, 5.1] •Stack gas velocity - EPA Method 2 [4301, 5.5] •Stack gas moisture - EPA Method 4 [4301, 5.6]	•Particulate matter concentration - EPA Method 5 (note EPA Methods 2 and 4 are referenced within Method 5) [4301, 5.1 and 4201, 4.1]

**Step 2. Select most stringent emission limit or performance standard:**

The existing PM daily emission limits, when combined with the calculations at 12% carbon dioxide requirements, are at least as stringent as those imposed by Template SJV-BSG-17 condition 4, District Rules 4201 and 4301. They are also more stringent than County Rules 407.2 (Kern, Tulare, Kings, Stanislaus, and San Joaquin) and 408.2 (Merced), as demonstrated below:

Compliance with PM Limit - District Rule 4201, 3.1 and Template condition 4 requirements:

This rule and template condition 4 requires PM emission limits of:

0.1 grain/dscf of gas calculated to 12% carbon dioxide, and

0.1 grain/dscf of gas, and

10 lb/hr

Compliance with PM Limit - District Rule 4301, 5.1 requirements:

This rule requires PM emissions to be limited to the following:

0.1 grain per cubic foot of gas calculated to 12% carbon dioxide at dry standard conditions and

10 lb/hr

The proposed conditions combined the requirements for calculations at 12% carbon dioxide and calculated maximum daily emission limit (shown below) are less than 10 lb/hr and are therefore at least as stringent as District Rule 4301 or Template condition 4, District Rule 4201 and 4301 as demonstrated below.

Compliance with PM Limit - District Rule 4201, 3.1:

This rule requires PM emissions to be limited to the following:

0.1 grain per cubic foot of gas at dry standard conditions

The excess air in the exhaust of units qualifying to use Template SJV-BSG-17 ranges from 0 to 4%, when calculated at 12% carbon dioxide (see Appendix A of Template SJV-BSG-17). Since maximum particulate emissions occur at 0% excess air, which may occur at operating CO<sub>2</sub> levels and dry standard conditions, the above limit of 12% carbon dioxide is also included as a condition of the permit unit. The proposed limits are at least as stringent as the requirements of this rule.

### Step 3. Conditions ensuring compliance with applicable requirements

An excess air concentration of 0% in the exhaust results in the maximum particulate matter concentration for any given emission rate. Therefore, the following calculations use an uncorrected F factor to represent worst-case emissions. Calculations determining the excess air concentrations for 12% CO<sub>2</sub> are shown in Template SJV-BSG-17, Appendix A.

#### GASEOUS FUEL FIRED UNITS

The following calculations, using the worst case emission factors for natural gas from permit unit (dormant C-1121-11) with the largest capacity (62.5 MMBtu/hr), demonstrate that the emission of PM during the firing of gaseous fuels complies with the limits of these rules.

$$\left( \frac{0.072 \text{ lb PM}}{\text{MMBtu}} \right) \left( \frac{62.5 \text{ MMBtu}}{\text{hr}} \right) = \left( \frac{4.5 \text{ lb PM}}{\text{hr}} \right) < \left( \frac{10 \text{ lb PM}}{\text{hr}} \right)$$

$$\left( \frac{0.072 \text{ lb PM}}{\text{MMBtu}} \right) \left( \frac{1 \text{ MMBtu}}{8,710 \text{ dscf}} \right) \left( \frac{7,000 \text{ gr}}{1 \text{ lb}} \right) = \left( \frac{0.045 \text{ gr}}{\text{dscf}} \right) < \left( \frac{0.1 \text{ gr}}{\text{dscf}} \right)$$

where:

$$\frac{0.072 \text{ lb PM}}{\text{MMBtu}} = \text{sum of filterable and condensable uncontrolled PM emission factor of natural gas (C - 1121 - 98, condition #10)}$$

$$\frac{62.5 \text{ MMBtu}}{\text{hr}} = \text{maximum heat input any steam generator at this facility}$$

$$\frac{7000 \text{ grain}}{1 \text{ lb}} = \text{conversion factor (AP-42, Appendix A)}$$

$$\frac{1 \text{ MMBtu}}{8710 \text{ dscf}} = F \text{ factor, } F_{\text{NG}}, \text{ for natural gas at 0\% O}_2 \text{ (40CFR60, App. A, Table 19-1)}$$

The only constituents found in non-regulated gas streams that contribute to the formation of PM are sulfur and, occasionally, trace amounts of metals. Any metals present in the gas stream are removed during the free water knockout stage in the condenser at the compressor. The results of source tests on units operating on combined waste gas and natural gas show PM levels far below allowable levels (actual source tests are on file with the District). Based on these source test results and the preceding compliance analysis, compliance with applicable PM limits is assured without the need for PM testing.

#### RESIDUAL OIL FIRED (INCLUDING CRUDE OR TOPPED CRUDE)

Compliance with PM limits will be assured by permit conditions that require source testing when firing on residual oil (including crude or topped-crude). The operator is required to record daily amount of all fuels combusted, the dates on which firing on any fuel other than certified gaseous or diesel fuel has occurred, as well as the type of non-certified fuel fired as addressed by including either Templates BSG-17 condition #2 or permit conditions listed in the table below. If a unit is fired on residual oil at any time during a calendar year, the operator is required either by Template BSG-17 condition #5 or permit conditions listed below, to show compliance with the PM emission limits by source testing the unit during such firing and within 60 days of said firing.

A worst case example using the largest capacity permit unit with the worst PM emission value (dormant C-1121-101 and 105) of 0.074 lb/MMBtu when firing oil, results in the following emissions.

$$\left( \frac{0.074 \text{ lb PM}}{\text{MMBtu}} \right) \left( \frac{4 \text{ MMBtu}}{\text{hr}} \right) = \left( \frac{0.29 \text{ lb PM}}{\text{hr}} \right) < \left( \frac{10 \text{ lb PM}}{\text{hr}} \right)$$

$$\left( \frac{0.074 \text{ lb PM}}{\text{MMBtu}} \right) \left( \frac{\text{MMBtu}}{9190 \text{ dscf}} \right) \left( \frac{7000 \text{ gr}}{\text{lb}} \right) = \left( \frac{0.056 \text{ gr}}{\text{dscf}} \right) < \left( \frac{0.1 \text{ gr}}{\text{dscf}} \right)$$

where:

$$\frac{0.074 \text{ lb PM}}{\text{MMBtu}} = \text{sum of filterable and condensable uncontrolled PM emission factor of natural gas (C - 1121 - 101 or - 105, condition \#4)}$$

$$\frac{4 \text{ MMBtu}}{\text{hr}} = \text{maximum heat input any oil fired steam generator at this facility}$$

$$\frac{7000 \text{ grain}}{1 \text{ lb}} = \text{conversion factor (AP-42, Appendix A)}$$

$$\frac{9190 \text{ dscf}}{\text{MMBtu}} = F \text{ factor, } F_d, \text{ for oil (40CFR60, App. A, Method 19, Table 19-1)}$$

The permit conditions listed below for each of these units assures that all Title V requirements will be addressed for each unit prior to operation.

Permit Unit	Condition
-12-5	6, 9 & 11
-9-5, -10-5, -13-5 through -16-5	4 & 16
-11-5	6, 8 & 10
-17-6 through -19-6, -41-6	5 & 7
-22-3,	5 & 6
-23-3	5 & 7
-100-5, -101-5, -105-5, -106-5	3, 4, 7 & 8

b. Heater Treater (-24-1 through -26-1)

The units fire natural gas. The following equation demonstrates that the emissions of PM are expected to be well below applicable limits.

$$\begin{aligned}
 &= \frac{0.5 \text{ lb}}{\text{day}} \times \frac{\text{day}}{0.11429 \text{ MMscf}} \times \frac{1 \text{ MMscf}}{900 \text{ MMBtu}} \times \frac{1 \text{ MMBtu}}{8710 \text{ dscf}} \times \frac{7000 \text{ gr}}{1 \text{ lb}} \\
 &= \frac{0.0039 \text{ gr}}{\text{dscf}} < \frac{0.1 \text{ gr}}{\text{dscf}}
 \end{aligned}$$

Where:

$$\frac{0.5 \text{ lb}}{\text{day}} = \text{Permit PM}_{10} \text{ condition}$$

$$\frac{114,290 \text{ scf}}{\text{day}} = \text{Permit maximum fuel usage condition}$$

$$\frac{1 \text{ MMscf}}{900 \text{ MMBtu}} = \text{Minimum expected higher heating value of natural gas (AP-42, Table 1.4.1)}$$



$$\frac{1 \text{ MMBtu}}{8710 \text{ dscf}} = F \text{ factor, } F_{\text{NG}}, \text{ for natural gas at 0\% O}_2 \text{ (40CFR60, App. A, Table 19-1)}$$

Conditions 2 and 4 of the requirements for permit units -24-1 through -26-1 assures compliance with District Rule 4201. Since the equation demonstrated that PM emissions would be well below the applicable limit, no further monitoring, record keeping or reporting will be necessary.

c. Cogeneration Gas Turbines (-33-2 and -34-2)

The units are fueled by natural gas only. The following equation demonstrates that the emissions of PM are expected to be well below applicable limits.

$$= \frac{3.34 \text{ lb} - \text{PM}_{10}}{\text{hr}} \times \frac{\text{hr}}{52.2 \text{ MMBtu}} \times \frac{1 \text{ MMBtu}}{8710 \text{ dscf}} \times \frac{7000 \text{ gr}}{1 \text{ lb}} = \frac{0.051 \text{ gr}}{\text{dscf}} < \frac{0.1 \text{ gr}}{\text{dscf}}$$

Where:

$$\frac{80.2 \text{ lb}}{\text{day}} = \frac{3.34 \text{ lb}}{\text{hr}} = \text{PM}_{10} \text{ emission factor from permit condition \#7}$$

$$\frac{7000 \text{ grain}}{1 \text{ lb}} = \text{conversion factor (AP-42, Appendix A)}$$

$$\frac{52.2 \text{ MMBtu}}{\text{hr}} = \text{Maximum permitted heat input capacity}$$

$$\frac{1 \text{ MMBtu}}{8710 \text{ dscf}} = F \text{ factor, } F_{\text{NG}}, \text{ for natural gas at 0\% O}_2 \text{ (40CFR60, App. A, Table 19-1)}$$

Conditions 4, 5 and 11 of the requirements for permit units -33-2 and -34-2 assure compliance with District Rule 4201.

d. Diatomaceous Earth Silo (-36-1)

Emissions from this operation are controlled by a baghouse. Materials are transported pneumatically to the silo and controlled by a baghouse. However since there are no emission factor available for Diatomaceous Earth, it will be approximated by the emission factor for pneumatic loading of cement silos for batch operation AP-42, Table 11.12-2. A properly maintained and operated baghouse is expected to achieve at least 99% control efficiency, according to the Air Pollution Engineering Manual, page 131, Attachment F. The following equation demonstrates that the emissions of PM are expected to be well below applicable limits.

$$\frac{0.27 \text{ lb}}{\text{ton}} \times \frac{7000 \text{ gr}}{\text{lb}} \times \frac{18 \text{ lb}}{\text{ft}^3} \times \frac{4,800 \text{ ft}^3}{\text{day}} \times \frac{\text{ton}}{2000 \text{ lb}} \times \frac{\text{load}}{30 \text{ min.}} \times \frac{\text{min.}}{500 \text{ cf}} \times (1 - 0.99)$$

$$= \frac{0.054 \text{ gr}}{\text{dscf}} < \frac{0.1 \text{ gr}}{\text{dscf}}$$

Where:

$$\frac{0.27 \text{ lb}}{\text{ton}} = \text{Emission factor (AP-42, Table 11.12-2)}$$

$$\frac{18 \text{ lb}}{\text{ft}^3} = \text{Material Density}$$

$$4,800 \text{ ft}^3 = \text{Tank Volume}$$

$$30 \text{ minutes} = \text{Assumed load time}$$

$$500 \text{ cfm} = \text{Assumed minimum air flow rate}$$

$$99\% = \text{Assumed filter control efficiency}$$

Condition 2 of the requirements for permit unit -36-1 assures compliance with District Rule 4201.

e. Precoat Tank (C-1121-37-1)

This unit is not subject to District Rule 4201 since emissions are fugitive in nature.

## 5. County Rule 406 and District Rule 4301, 5.2.1 and 5.2.2- Fuel Burning Equipment

- a. Steam Generators (S-1121-9-5, -10-5, 11-5, -12-3, -13-5 through -16-5, -17-6 through -19-6, -22-3, -23-3, -41-6, -100-2, -101-2, -105-2 and -106-2)

Section 5.1 and 5.2.3 of District Rule 4301 limits the emission of PM to 0.1 gr/dscf @ 12% CO<sub>2</sub> and 10 lb/hr. These requirements were addressed during the streamlining process used for compliance with County Rule 404, Rule 4201 and Rule 4301 in Section IX.B.4 above.

Section 5.2.1 of District Rule 4301 limits the emission of SO<sub>x</sub> to 200 lb/hr (calculated as SO<sub>2</sub>).

Assuming that all sulfur compounds are converted to SO<sub>2</sub>, this is equivalent to 100 lb of elemental sulfur per hour (see Template BSG-17, Appendix D). Operators have the option of complying with this emission limit by using certified fuels, by complying with fuel sulfur content limits, or by source testing the emission unit in combination with fuel analysis.

### USING PUC OR FERC CERTIFIED NATURAL GAS

PUC regulated natural gas has a maximum sulfur content of 0.017% by weight [Public Utilities Code General Order 58-B]. FERC gas has an even lower sulfur content (~ 0.0026%, see Template BSG-17, Appendix B). The maximum sulfur concentration allowed under Rule 4301 will be:

$$\frac{\left(\frac{100 \text{ lb S}}{\text{hr}}\right) \left(\frac{453.59 \text{ g CH}_4}{\text{lb CH}_4}\right) \left(\frac{23.7 \text{ L CH}_4}{\text{gmol CH}_4}\right) \left(\frac{0.00105 \text{ MMBtu}}{\text{scf CH}_4}\right)}{\left(\frac{16.04 \text{ g CH}_4}{\text{gmol CH}_4}\right) \left(\frac{28.317 \text{ L CH}_4}{\text{scf CH}_4}\right) \left(\frac{62.5 \text{ MMBtu}}{\text{hr}}\right)} = \left(\frac{0.0398 \text{ lb S}}{\text{lb CH}_4}\right) \approx 4 \%$$

where:

$$100 \frac{\text{lb S}}{\text{hr}} = 200 \frac{\text{lb SO}_2}{\text{hr}} = \text{emission limit (see Appendix D)}$$

$$\frac{453.59 \text{ g CH}_4}{\text{lb CH}_4} = \text{conversion factor (AP42, Appendix A)}$$

$$23.7 \frac{L}{gmol} = \frac{(288.71K) \left( 22.4 \frac{L}{gmol} \right)}{273.15K} = \text{molar volume of an ideal gas corrected to standard conditions (60° F, 14.7 psi) per Charles' Law}$$

$$\frac{0.00105 \text{ MMBtu}}{scf \text{ CH}_4} = \text{heating value for natural gas (AP42, Appendix A)}$$

$$\frac{16.04 \text{ g CH}_4}{gmol \text{ CH}_4} = \text{molecular weight of gaseous fuel}$$

$$\frac{28.317 \text{ L CH}_4}{scf \text{ CH}_4} = \text{conversion factor (AP42, Appendix A)}$$

$$\left( \frac{62.5 \text{ MMBtu}}{hr} \right) = \text{maximum heat input of largest steam generator at this facility}$$

The preceding calculation shows that an emission rate of 200 lb-SO<sub>2</sub>/hr corresponds to 4% by weight sulfur content for the largest steam generator at this facility. Since the maximum sulfur content of PUC or FERC regulated natural gas is far below this limit (0.017%), units using PUC or FERC regulated natural gas will comply with this requirement.

#### USING NONCERTIFIED LIQUID FUELS

If the operator chooses to demonstrate compliance by fuel analysis of noncertified fuels, compliance shall be determined by multiplying the sulfur content of the fuel in lb/MMBtu by the maximum hourly heat input rating of the unit in MMBtu/hr, and comparing the result to the 100 lb sulfur (or 200 lb of SO<sub>2</sub>) per hour limit.

A worst case example using the largest capacity permit unit with the worst SO<sub>x</sub> emission value (dormant C-1121-101, -105) of 0.83 lb/MMBtu when firing oil, results in the following emissions.

$$\left( \frac{0.083 \text{ lb SO}_x}{\text{MMBtu}} \right) \left( \frac{4 \text{ MMBtu}}{\text{hr}} \right) = \left( \frac{0.33 \text{ lb SO}_x}{\text{hr}} \right) < \left( \frac{200 \text{ lb SO}_x}{\text{hr}} \right)$$

where:

$$\frac{0.083 \text{ lb } SO_x}{\text{MMBtu}} = \text{emission factor of natural gas (C - 1121 - 101 or - 105, condition \#4)}$$

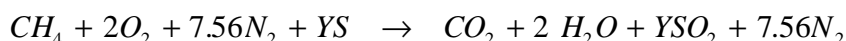
$$\frac{4 \text{ MMBtu}}{\text{hr}} = \text{maximum heat input any oilfired steam generator at this facility}$$

### County Rule 406 (Fresno)

County Rule 406 limit the emission of sulfur compounds to 0.2% by volume (2000 ppmv) calculated as SO<sub>2</sub>, on a dry basis averaged over 15 minutes. Operators have the option of complying with this emission limit by using certified fuels, by complying with fuel sulfur content limits, or by source testing the emission unit.

### USING PUC OR FERC CERTIFIED NATURAL GAS

PUC regulated natural gas has a maximum sulfur content of 0.017% by weight [Public Utilities Code General Order 58-B]. FERC regulated gas has a lower maximum sulfur content (~ 0.0026%, see Template SJV-BSG –17, Appendix B). Assuming that 0% excess air in the exhaust stream corresponds with maximum SO<sub>x</sub> emissions concentration (neglecting NO<sub>x</sub> and SO<sub>x</sub> relative to SO<sub>2</sub> in the exhaust) and that CH<sub>4</sub> represents a typical gaseous fuel, the combustion equation is:



where:

Y = moles of sulfur in the fuel.

Solving an expression for the fraction of SO<sub>2</sub> in the dry exhaust by volume gives:

$$\frac{Y}{1 + 7.56} = 0.002 \Rightarrow Y = 0.01712$$

where:

Y = mole fraction of S per mole of CH<sub>4</sub> combusted

1 = one mole of CO<sub>2</sub>

7.56 = number of moles of N<sub>2</sub>

0.002 = 0.2% by volume = 2000 ppmv limit per County Rule 407

Use Y to calculate the weight fraction of S in one mole of CH<sub>4</sub>:

$$\frac{(0.01712)(32.06)}{(16.04) + (0.01712)(32.06)} = 0.033 \Rightarrow 3.3\% \text{ S by weight in the fuel}$$

where:

32.06 = molecular weight of sulfur (S)  
16.04 = molecular weight of methane (CH<sub>4</sub>)  
0.033 = fraction of S by weight in the fuel

The preceding calculation shows that an exhaust concentration of 0.2% by volume corresponds to a gaseous fuel sulfur content by weight of 3.3%. Therefore, the use of PUC or FERC regulated gas with a maximum sulfur content of 0.017% will assure compliance with this requirement.

#### USING NON-CERTIFIED GASEOUS FUELS

The limit determined above for gaseous fuels is 3.3 weight percent sulfur. This value is conservative for field gas, which frequently has a lower heating value and higher exhaust volume flow rate than pure methane. Operators may choose to comply with this fuel sulfur limit by fuel testing using grab sample analysis by GC-FPD/TCD performed in the laboratory. Fuel sulfur content testing shall be performed weekly except that if compliance has been demonstrated for eight consecutive weeks, then the testing frequency shall be semi-annual. In all cases, operator shall record dates on which the unit is fired on non-certified fuel.

#### USING NON-CERTIFIED LIQUID FUELS (RESIDUAL OR CRUDE OIL)

$$\frac{\left( \frac{157 (S) \text{ lb } SO_x}{10^3 \text{ gal oil}} \right) \left( \frac{23.7 \text{ L } SO_2}{\text{gmol } SO_2} \right) \left( \frac{0.035315 \text{ dscf } SO_2}{\text{L } SO_2} \right) \left( \frac{453.59 \text{ g } SO_2}{\text{lb } SO_2} \right)}{\left( \frac{9190 \text{ dscf exhaust}}{\text{MMBtu}} \right) \left( \frac{64.14 \text{ g } SO_2}{\text{gmol } SO_2} \right) \left( \frac{150 \text{ MMBtu}}{10^3 \text{ gal oil}} \right)} = \left( \frac{0.002 \text{ dscf } SO_2}{\text{dscf exhaust}} \right)$$

where:

S = weight % of sulfur in the oil = 3

$$\frac{157 \text{ (S) } lb \text{ } SO_2}{10^3 \text{ gal}} = \text{uncontrolled emission factor for } SO_2 \text{ (AP-42, Table 1.3-2)}$$

$$23.7 \frac{L}{gmol} = \frac{(288.71K) \left( 22.4 \frac{L}{gmol} \right)}{273.15K} = \text{molar volume of an ideal gas corrected to}$$

District standard conditions (60° F, 14.7 psi)  
per Charles' Law

$$0.035315 \frac{ft^3}{L} = \text{conversion factor (AP42, Appendix A)}$$

$$453.59 \frac{g}{lb} = \text{conversion factor (AP42, Appendix A)}$$

$$9190 \frac{dscf}{MMBtu} = \text{F-factor, } F_d, \text{ for oil (40 CFR § 60, App. A, Method 19, Table 19-1)}$$

$$64.14 \frac{g \cdot SO_2}{gmol} = \text{molecular weight, } SO_2$$

$$\frac{150,000 \text{ Btu}}{1 \text{ gal diesel}} = \text{heating value of residual oil (AP-42, Appendix A)}$$

$$0.002 \frac{\text{parts} \cdot SO_2}{\text{parts} \cdot \text{exhaust}} = \text{County Rule 406, emission limit}$$

The preceding calculation shows that an exhaust concentration of 0.2% by volume corresponds to a fuel sulfur content by weight of 3.0%. Permit conditions limit oil sulfur content to 0.8% by weight. Fuel sulfur content testing shall be performed weekly except that if compliance has been demonstrated for eight consecutive weeks, then the testing frequency shall be semi-annual. In all cases, operator shall record dates that the unit is fired on non-certified fuel.

The Permit condition listed below for each of these units assures that all Title V requirements will be addressed for each unit prior to operation.

Permit Unit	Condition
-9-5, -10-5, -13-5 through -16-5	1, 4, 16 through 19, 21 & 31
-11-5	6, 8 & 10 through 13 & 15
-12-5	6, 9 & 11 through 14 & 16
-17-6 through -19-6, -41-6	2, 5, 7, 11 through 13, 22 through 26
-22-3,	2 through 8
-23-3	2 through 5 and 7 through 9
-100-2, -101-2, -105-2, -106-2	2, 3, 4, 7 & 9 through 14

### District Rules 4301, 5.2.2, NO<sub>x</sub> Requirements

Section 5.2.2 of District Rule 4301 limits the emission of NO<sub>x</sub> to 140 lb/hr (calculated as NO<sub>2</sub>). The following analysis of the largest permit unit demonstrates that compliance is expected:

#### GAS FIRED:

$$\left( \frac{\left( \frac{100 \text{ lb NO}_x}{10^6 \text{ ft}^3} \right)}{\left( \frac{0.00102 \text{ MMBtu}}{\text{ft}^3} \right)} \right) \left( \frac{62.5 \text{ MMBtu}}{\text{hr}} \right) = \left( \frac{6.1 \text{ lb NO}_x}{\text{hr}} \right) < \left( \frac{100 \text{ lb NO}_x}{\text{hr}} \right)$$

#### RESIDUAL FUEL OIL FIRED:

$$\left( \frac{\left( \frac{55 \text{ lb NO}_x}{10^3 \text{ gal}} \right)}{\left( \frac{0.15 \text{ MMBtu}}{\text{gal}} \right)} \right) \left( \frac{4 \text{ MMBtu}}{\text{hr}} \right) = \left( \frac{1.47 \text{ lb NO}_x}{\text{hr}} \right) < \left( \frac{100 \text{ lb NO}_x}{\text{hr}} \right)$$

where:

$$\frac{62.5 \text{ MMBtu}}{\text{hr}} = \text{maximum heat input any steam generator at this facility}$$



$$\frac{4 \text{ MMBtu}}{\text{hr}} = \text{maximum heat input any oilfired steam generator at this facility}$$

$$\frac{100 \text{ lb NO}_x}{10^6 \text{ ft}^3} = \text{Gas fired boilers uncontrolled NO}_x \text{ emission factor (Table 1.4 - 2)}$$

$$\frac{0.00102 \text{ MMBtu}}{\text{ft}^3} = 1020 \frac{\text{Btu}}{\text{ft}^3} = \text{natural gas heating value (AP42, Table 1.4 - 2)}$$

$$55 \frac{\text{lb} \cdot \text{NO}_x}{10^3 \cdot \text{gal}} = \text{uncontrolled NO}_x \text{ emission factor for residual oil fired boilers}$$

(AP42, Table 1.3-2)

$$0.150 \frac{\text{MMBtu}}{\text{gal}} = 150,000 \frac{\text{Btu}}{\text{gal}} = \text{heating value of residual oil (AP42 Appendix A)}$$

The preceding calculation clearly demonstrates that NO<sub>x</sub> emissions, for even the largest units at this facility, are well below the limit of 140 lb/hr from District Rule 4301. When firing on gaseous fuel NO<sub>x</sub> emissions are approximately 1/10 or less of that allowed by Rule 4301. When firing on residual oil, NO<sub>x</sub> emissions are approximately 1/4 or less of the limit of Rule 4301.

For gaseous-fueled units compliance with this rule is assured without testing, record keeping and monitoring requirements. For residual and crude oil fired units, compliance with this rule is assured by conditions listed in the table below.

The Permit condition listed below for each of these units assures that all Title V requirements will be addressed for each unit prior to operation.

Permit Unit	Condition
-9-5, -10-5, -13-5 through -16-5	1, 4, 12 through 14, 25 & 31
-11-5	3, 6, 8, 10, 19 & 25
-12-5	5, 6, 9, 11, 17 & 23
-17-6 through -19-6, -41-6	6, 7, 10, 14 through 19, 30
-22-3,	5 through 7
-23-3	5 through 7
-100-2, -101-2, -105-2, -106-2	3,4, 7, 8, 15 & 16

b. Heater (-24-3 through -26-3)

The units fire natural gas. Section 5.1 and 5.2.3 of District Rule 4301 limits the emission of PM to 0.1 gr/dscf @ 12% CO<sub>2</sub> and 10 lb/hr. These requirements were addressed in the discussion of compliance with County Rule 404, Rule 4201 and Rule 4301, 5.1 and 5.2.3 for steam generators and by permit unit condition #2.

County Rule 406, Rule 4301 SO<sub>x</sub> and NO<sub>x</sub> Requirements

Section 5.2.1 of District Rule 4301 limits the emission of SO<sub>x</sub> to 200 lb/hr (calculated as SO<sub>2</sub>). County Rule 406 limits the emission of sulfur compounds to 0.2% by volume (2000 ppmv) calculated as SO<sub>2</sub>, on a dry basis averaged over 15 minutes. These requirements were addressed in the discussion of compliance with County Rule 406 and Rule 4301, 5.2.1 and 5.2.2 for steam generators and by permit unit condition #2. Section 5.2.2 of District Rule 4301 limits the emission of NO<sub>x</sub> to 140 lb/hr (calculated as NO<sub>2</sub>).

Conditions 2 through 9 of the requirements for permit units -24-1 through -26-1 assures compliance with District Rule 4201.

c. Turbine (-33-2 and -33-2)

The units are fueled by natural gas only. Section 5.1 and 5.2.3 of District Rule 4301 limits the emission of PM to 0.1 gr/dscf @ 12% CO<sub>2</sub> and 10 lb/hr. These requirements were addressed in discussions with County Rule 404, Rule 4201 and Rule 4301, 5.1 and 5.2.3 for steam generators and by permit unit condition #2.

County Rule 406 and Rule 4301 SO<sub>x</sub> and NO<sub>x</sub> Requirements

Section 5.2.1 of District Rule 4301 limits the emission of SO<sub>x</sub> to 200 lb/hr (calculated as SO<sub>2</sub>). County Rule 406 limits the emission of sulfur compounds to 0.2% by volume (2000 ppmv) calculated as SO<sub>2</sub>, on a dry basis averaged over 15 minutes. These requirements were addressed in the discussion of compliance with County Rule 406 and Rule 4301, 5.2.1 and 5.2.2 for steam generators and by permit unit conditions #2 and 11.

Section 5.2.2 of District Rule 4301 limits the emission of NO<sub>x</sub> to 140 lb/hr (calculated as NO<sub>2</sub>). Conditions 3 through 5 and 10 of the requirements for permit units -33-2 through -34-2 assures compliance with District Rule 4201.

6. District Rule 4401 – Steam-Enhanced Crude Oil Production Well Vents

a. Casing Vapor Recovery System (-38-2 and -39-2)

Section 4.1 sets forth requirements for exemption from the requirements of this rule when the well is undergoing service or repair. Condition 6 of the requirements for permit units -38-2 and -39-2 assures compliance with this requirement.

b. Casing Vapor Recovery System (-38-2 and -39-2)

c. Cyclic Crude Oil Wells (-93-1)

Section 4.5 sets forth requirements for exemptions from the requirements of this rule when the well is located more than 1000 feet from an existing well vent vapor control system. Condition 2 of the requirements for permit unit -93-1 assures compliance with this requirement.

d. Casing Vapor Recovery System (-38-2 and -39-2)

Sections 5.1 and 5.2 requires the uncontrolled emissions from any steam enhance well vent or several vents connected to a vapor collection and control system, to be reduced 99% by weight. Conditions 2 and 3 of the requirements for permit units -38-2 and -39-2 assure compliance with this requirement.

Section 5.3 requires well vents be maintained in good repair and the total number of leaks to not exceed that allowed by the rule which is dependant on the number of wells permitted. Conditions 8 and 11 of the requirements for permit units -38-2 and -39-2 assure compliance with this requirement.

Section 5.3.1 requires upon detection shall affix a readily visible tag bearing the date on which the leak is detected and must be repaired within 15 days. Conditions 9 and 10 of the requirements for permit units -38-2 and -39-2 assure compliance with this requirement.

Section 6.1.1 requires records to be maintained of the date and well identification where steam or well stimulation occurs. Condition 7 of the requirements for permit units –38-2 and –39-2 assure compliance with this requirement.

Section 6.3 requires testing to be done by listed USEPA, CARB or ASTM test methods. Condition 12 of the requirements for permit units –38-2 and –39-2 assure compliance with this requirement.

7. District Rule 4623 – Storage of Organic Liquid

- a. Crude Oil Storage Tanks (-45-2)
- b. Crude Oil Storage Tanks (-46-1)
- c. Fresh Water Knockoff Tanks (-72-1, -73-1, -79-1)
- d. Crude Oil Storage Tanks (-74-1 through –78)
- e. Crude Oil Storage Tanks (-82-1 through –87-1, -72-1 and –73-1)
- f. Crude Oil Storage Tanks (-117-1, -119-1, -123-1, -124-1, -125-1, -128-1, -131-1 through -140-1, -142-1 through –145-1, -147-1, -149-1 through –150-1, -154-1, -155-1, -157-1 through -160-1)
- g. Crude Oil Storage Tanks (-161-1 through -166-1)

District Rule 4623 (Amended December 17, 1992) is a renumbering of the requirements of SIP approved District Rule 463.2.

Section 2.0 of the rule exempts equipment used to store organic liquids with a true vapor pressure of less than or equal to 1.5 psia from the requirements of District Rule 4623. This requirement is in the following permit unit conditions, which assure compliance:

Permit Unit	Conditions
-74-1 through –78-1	1
-82-1 through –87-1	1
-117-1, -119-1, -123-1, -124-1, -125-1, -128-1, -131-1 through -140-1, -142-1 through –145-1, -147-1, -149-1 through –150-1, -154-1, -155-1, -157-1 through -160-1	8
-162-1	2
-161-1, -163-1, -164-1 & -166-1	10

This rule requires that all tanks with a storage capacity greater than 19,800 gallons, storing organic liquids with a true vapor pressure greater than or equal to 1.5 psia, have either a floating roof or vapor recovery system to control volatile organic compound (VOC) emissions.

Section 5.3.1 requires any fixed roof tank with a storage capacity of 19,800 gallons or larger used to store any organic liquid, light crude oil or petroleum distillate with a true vapor pressure greater than 1.5 psia be equipped with a vapor loss prevention system capable of collecting all VOCs.

Some of these units also are required to contain a system for processing and for return to liquid storage or the disposal of VOCs, so as to prevent their emission to the atmosphere at an efficiency of at least 95 percent by weight. Some of the units have existing controls for VOC and H<sub>2</sub>S emissions by using a vapor recovery system but do not necessarily store liquids with a true vapor pressure greater than 1.5 psia. This requirement is in the following permit unit conditions, which assure compliance:

Permit Unit	Conditions
-45-2	2
-46-1	1
-72-1, -73-1, -79-1	2
-82-1 through -87-1 and -88-1 through -91-1	See -45-2 conditions 1 & 2

Section 5.3.2 requires that any tank gauging or sampling device on a tank vented to the vapor recovery system be equipped with a gas-tight cover. This cover shall be closed at all times except during gauging or sampling. This requirement is in the conditions of the following permit units:

Permit Unit	Conditions
-45-2	3
-46-1	6
-72-1, -73-1, -79-1	3
-82-1 through -87-1 and -88-1 through -91-1	See -45-2 conditions 1 & 3

Section 5.3.3 requires that all piping, valves and fittings be constructed and maintained in a gas tight condition. Monitoring and record keeping supporting this requirement are addressed in the following permit units:

Permit Unit	Conditions
-45-2	4
-46-1	7
-72-1, -73-1, -79-1	4
-82-1 through -87-1 and -88-1 through -91-1	See -45-2 conditions 1 & 4

Additional monitoring and record keeping requirements are given in the following permit conditions:

Permit Unit	Conditions
-45-2, -46-1	15 through 18
-82-1 through -87-1 and -88-1 through -91-1	See -45-2 conditions 1 and 15 through 18

**8. 40 CFR 60, Subpart GG (-33-2 and -34-2)**

These requirements each contain limits on emissions of sulfur oxides (SO<sub>x</sub>). The following analysis shows that the proposed requirement to burn PUC-quality natural gas is more stringent than each county's rule and/or 40 CFR Subpart 60. Streamlining procedures, as documented in the following steps, are utilized to substitute the proposed set of requirements for the otherwise applicable requirements.

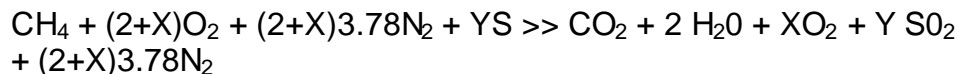
**Side-by-side Comparison of Applicable Requirements:**

(SO <sub>x</sub> )			
CITATION:	County Rule	Subpart GG	Proposed Requirements
WORK PRACTICE STDS.	NONE	Do not burn fuel which contains sulfur in excess of 0.8% by weight	Use PUC quality natural gas with a sulfur content of ≤ 0.017% by weight
EMISSION LIMIT	3.0 (2000 ppm), based on 15 minute averaging	60.333(a) (150 ppm) based on instantaneous averaging	
MONITORING 1) PUC-regulated natural gas 2) non PUC-regulated natural gas	none	60.334(b) & 335(e) - daily fuel analysis for sulfur content, unless other frequency approved by the Administrator	1) If PUC-regulated, natural gas is monitored by PUC. 2) If non PUC-regulated, weekly fuel analysis for sulfur content. If (8) consecutive tests show compliance, then quarterly testing.
RECORDKEEPING 1) PUC-regulated natural gas 2) non PUC-regulated natural gas	none	None	1) PUC regulated fuel, maintain copies of fuel invoices. 2) Non PUC-regulated, maintain copies of quarterly SO <sub>x</sub> testing results.
REPORTING	none	60.334(c)(2)	None
TEST METHODS	EPA 8	EPA 20	ASTM Method D-1072-80, D3031-81, D4084-82, or D3246-81

The SO<sub>x</sub> emission limit of 150 ppmv is the maximum allowed by NSPS Subpart GG, and is clearly more stringent than the 2000 ppmv limit imposed by each county's rule. Because the units combust only PUC regulated natural gas with a sulfur content ≤ 0.017% S by weight, (PUC-quality, see Appendix D), compliance is assured for the 60.333(a) emission limit of 150 ppmv SO<sub>2</sub> (dry std. conditions at 15% O<sub>2</sub>), 60.333(b) fuel sulfur limit of 0.8% by weight and each county's rule SO<sub>x</sub> emission rate limit of 2000 ppmv. Therefore, as demonstrated below, the proposed requirements assure compliance with all otherwise applicable requirements.

Compliance with SO<sub>x</sub> Emission Concentration Limit - 60.333(a):

The combustion equation is (neglecting NO<sub>x</sub> and SO<sub>x</sub> relative to O<sub>2</sub> in the exhaust):



Where            Y = moles of sulfur in the fuel  
                      X = moles of excess air

Solving an expression for the fraction of O<sub>2</sub> in the exhaust by volume gives:

$$\frac{X}{3 + X + (2 + X)3.78} = 0.15 \Rightarrow X = 5.597$$

Where

3 = combined total moles of CO<sub>2</sub> and H<sub>2</sub>O in the exhaust  
0.15 = fraction of O<sub>2</sub> in the exhaust by volume

Solving for Y in an expression for the fraction of SO<sub>2</sub> in the dry exhaust by volume gives:

$\frac{Y}{1 + 5.597 + 28.717} = 0.00015 \Rightarrow Y = 0.00530$
--

Where      1 = moles of CO<sub>2</sub> in the exhaust  
Y = mole fraction of S per mole of CH<sub>4</sub> combusted.  
28.717 = moles of N<sub>2</sub> in the exhaust  
0.00015 = 150 ppmv of SO<sub>x</sub> emission limit

Use Y to calculate the weight fraction of S in 1 mole of CH<sub>4</sub>:

$$\frac{(0.0053)(32.06)}{16.04 + (0.0053)(32.06)} = 0.0105 \Rightarrow 1.05\% \text{ S by weight in the fuel}$$

Where      32.06 = molecular weight of sulfur (S)  
16.04 = molecular weight of CH<sub>4</sub>  
0.0105 = fraction of S by weight in the fuel

The preceding calculations show that a fuel sulfur content of 1.05% by weight yields 150 ppmv SO<sub>x</sub>. Because the fuel is the only source of sulfur, the weight percent of sulfur in the fuel is proportional to the exhaust SO<sub>2</sub> concentration; therefore the exhaust SO<sub>2</sub> concentration associated with combustion of fuel with 0.017% sulfur is 2.4 ppmvd.

Compliance with 150 ppmv SO<sub>x</sub> at 15% excess O<sub>2</sub> and dry standard conditions and 2000 ppmv is assured because all units have a fuel sulfur concentration ≤ 0.017%.



Compliance with Sulfur Fuel Content Limit - 60.333(b):

Natural gas which meets the quality standards of the Public Utilities Commission (PUC) contains less than 0.017% sulfur by weight which assures compliance with the 0.8% sulfur by weight limit of New Source Performance Standard, Subpart GG - 40 CFR Subpart 60.333. All natural gas that is regulated enters the PUC pipeline for distribution to consumers and is tested to assure that its composition conforms to this standard. Natural gas that is not regulated by the PUC must be monitored for sulfur in natural gas as specified in section 40 CFR 60.334(b) and tested as required in 60.335(e).

By General Order 58-A of the PUC (see Appendix D), natural gas which is supplied by any gas utility must contain less than or equal to 5 grains of total sulfur per 100 standard cubic feet. All natural gas that enters the PUC pipeline for distribution to consumers is tested to assure that its composition conforms to these standards. This standard can be converted to an expression of weight percent of sulfur in the natural gas (ng):

%S	(lb S/lb ng) =	5 gr	1 lb	24.45L	1 mol ng	454 g	0.035 scf
		100 scf	7000 gr	mol ng	16 g	1 lb	1 L

= 0.017% sulfur

Condition 2 of the PTOs, which requires turbines to use PUC-quality natural gas with a sulfur content less than or equal to 0.0017% by weight. This assures compliance with the 0.8% sulfur by weight limit of New Source Performance Standard, Subpart GG - 40 CFR Subpart 60.333(b). In addition, condition 5 requires testing, conditions 7, 11 and 12 requires monitoring, and facility wide conditions 8, 9 and 10 requires reporting to assure compliance with the streamlined sulfur oxide emission limit.

The applicant is requesting a permit shield from the requirements of Rule 406 (Fresno) and subpart GG of 40 CFR that pertains to SOx emissions. See conditions 15 and 16 of the requirements for these permit units.

40 CFR § 60.332(a), (b) - Subpart GG

This requirement limits emissions of nitrogen oxides. Emissions shall not exceed a NO<sub>x</sub> emission rate of 75 ppmvd or 150 ppmv, depending on the unit size (at 15% O<sub>2</sub> with the ISO correction factor).

**Step 1. Side-by-side Comparison of Applicable Requirements:**

(NO <sub>x</sub> )		
CITATION:	Subpart GG	Proposed Requirements
WORK PRACTICE STDS.	NONE	Unit shall be exclusively fired with natural gas containing no more than 1 grain of total sulfur per 100 standard cubic feet of gas (as determined by test method ASTM D-1072. [District NSR Rule]
EMISSION LIMIT 1) < 10 MW 2) ≥ 10 MW	60.332(a) (75 ppm)	Emissions (corrected to 15% O <sub>2</sub> ) shall not exceed 40 ppm NO <sub>x</sub> nor 38 ppm CO. [District NSR Rule, 40 CFR 60.332(a)(1) & 60.332(a)(2) and District Rule 4703, 5.1.1]
MONITORING	The water-to-fuel ratio shall be continuously monitored, (60.334(a)) Conduct performance tests within 180 days of initial startup (60.8(a)) Performance testing procedures of 40 CFR 60.8 Monitor nitrogen content of the fuel. (60.334(b))	Permittee shall install, operate and maintain in calibration, to within 5% accuracy, a monitoring system which continuously measures and records the water-to-fuel ratio and fuel consumption and which correlates the water-to-fuel ratio during initial source testing with the NO <sub>x</sub> concentration in the exhaust by using the method described in 40 CFR 60.335(c). [District NSR Rule, Rule 1070 and 40 CFR 60.334] Permittee shall install, operate and maintain in calibration a system which continuously measures and records elapsed time of turbine operation. [40 CFR 60.334 and District Rule 4703, 6.2.1]
RECORDKEEPING	None	Operator shall maintain a stationary gas turbine system operating log that includes, on a daily basis, the actual local time start-up and stop time, length and reason for reduced load periods, total hours of operation, type and quantity of fuel used. [40 CFR 60.332 (a), (b)] Maintain all records for five years. [2520, 9.5.2]
REPORTING	Report any one-hour period when the water-to-fuel ratio falls below that determined to demonstrate compliance. (60.334(c))	Any one-hour period during which the average water-to-fuel ratio, as measured by the continuous monitoring system, falls below the water-to-fuel ratio determined to demonstrate compliance shall be reported to the APCO. Each report shall include the average water-to-fuel ratio, average fuel consumption, ambient conditions, turbine gas load and nitrogen content of the fuel during the period of excess emissions.
WORK PRACTICE	The water-to-fuel ratio to achieve compliance with the NO <sub>x</sub> limit shall be determined at different loads. (60.335(c)(2))	The water-to-fuel ratio shall be maintained between 0.6 and 0.8 lb of water to pound of fuel. Operator shall perform and submit an engineering performance test to demonstrate continuous compliance with condition 5 beyond the specified ratios.
TESTING	Determine the nitrogen content of the fuel being fired. Use EPA Method 20 to determine NO <sub>x</sub> concentrations. 60.335(a),(b))	Nitrogen oxides (NO <sub>x</sub> ) concentrations shall be determined using EPA Method 7E or 20 or ARB Method 100, and oxygen (O <sub>2</sub> ) concentrations shall be determined using EPA Method 3, 3A, or 20. [40 CFR 60.335(b) and District Rule 4703, 6.4] The operator shall provide source test information annually regarding the exhaust gas NO <sub>x</sub> concentration corrected to 15% O <sub>2</sub> (dry). [40 CFR 60.332(a), (b) and District Rule 4703, 5.1] Operator shall be required to conform to the compliance testing procedures described in District Rule 1081 (amended 12/13/93). [District Rule 1081; Rule 108.1 (Fresno)]

The preceding table shows that the proposed requirement to burn PUC-quality natural gas is more stringent than 40 CFR subpart GG. Streamlining procedures as documented in the following steps are utilized to substitute the proposed set of requirements for the otherwise applicable requirements.

**9. 40 CFR 63, Subpart HH - National Emission Standards for Hazardous Air Pollutants From Oil and Natural Gas Production Facilities**

These requirements provide national emission standards for hazardous air pollutants from oil and natural gas production facilities. Effective June 17, 2002, if the facility is a major air toxic source subject to the requirements of 40 CFR 63 subpart HH, the facility shall comply with all applicable requirements of 40 CFR 63 subpart HH. This facility is exempt from the requirements of this subpart, pursuant to section 40 CFR 63.760(e)(1). This facility exclusively handles black oil as defined in 40 CFR 63.761 (Hydrocarbon liquid with an initial producing gas-to-oil ratio less than 0.31 cubic meters per liter and an API gravity less than 40 degrees).

**10. 40 CFR Part 68 - Chemical Accident Prevention Provisions**

The requirements of this provision mandate that subject facilities submit a Risk Management Plan to the proper authority. Condition 41 of the facility wide requirements (C-1121-0-1) assures compliance with this provision.

**11. PSD Permits (NSR 4-4-8 and SJ 77-45)**

USEPA PSD permits NSR 4-4-8, SJ 77-45 were issued/modified by Region IX for Coalinga Area in 1977/1981. These permits were combined and now exist as one permit. Conditions from this permit were addressed to define how permit terms should be incorporated into Title V permits -100-5, -101-5, -105-5 and -106-5.

**(I.) Permit Expiration**

The construction authorized by the Approval to Construct/Modify was completed within a reasonable time; therefore, this requirement has been satisfied and is now obsolete. This condition was not included in the requirements for these permit units.

(II.) Notice Of Startup

Construction, facility start-up (as defined in 40 CFR 60.2(o)), and notification have been completed. This condition has been satisfied and is therefore obsolete now. This condition was not included in the requirements for these permit units.

(III.) Facilities Operation

This condition has been included as conditions 5 and 35 of the requirements for the facility wide conditions to assure compliance.

(IV.) Malfunction

This condition has been subsumed by conditions 1, 2, and 13 of the facility wide requirements to assure compliance.

(V.) Right to Entry

This condition has been subsumed by conditions 18 through 21 of the facility wide requirements.

(VI.) Transfer of Ownership or Control

This condition has been subsumed by condition 6 of the facility wide requirements.

(VII.) Severability

This condition has been subsumed by condition 12 of the facility wide permit requirements.

(VIII.) Other Applicable Requirements

Compliance with all applicable provisions of 40 CFR Parts 52, 60 and 61, and all other applicable Federal, State and local air quality regulations with these requirements is assured by conditions 5 and 35 of the facility wide requirements.

(IX.A) Special Conditions: Certification

Required notifications have been completed; therefore, this requirement is obsolete.

(IX.B) Special Conditions: Fuel Use

This condition provides daily fuel oil consumption limits of 3499 barrels per day for steam generators SG124 through SG139 and SG60 through SG64 and heater treaters HT658 and HT659. Steam generators SG60, SG61, SG63, SG64, SG125 through SG139 and heater treater HT806 are not a part facility C-1121 or C-1070 and therefore will not be addressed. In addition SG 62 (C-1121-98) and SG 124 (C-1121-109) have been made “dead”.

This condition limits the combined daily fuel consumption for SG124 through SG139 (C-1070-15 through -19). Steam generators SG124, SG125 through SG139 are no longer in facility C-1121 or have been made “dead” and therefore will not be addressed.

This condition limits the combined daily fuel consumption of 144 barrels per day for HT804, HT806, and HT808 (C-1121-101, N/A, -106; formerly C-1070-7-2, N/A, and -12-2). Heater treater HT806 is not a part of facility C-1121 or C-1070 and therefore will not be addressed. For HT804 (C-1121-101) and HT808 (C-1121-106), this requirement has been met by the burners inherent fuel burning capabilities limit of 4.0 and 3.5 MMBtu/hr respectively and fuel heating value of 150 MMBtu/1000 gal (AP-42, Table 1.3-2)

$$= (4.0 + 3.5) \text{ MMBtu/hr} \times 24 \text{ hr/day} \times \text{gal}/0.15 \text{ MMBtu} \div 42 \text{ gal/barrel}$$

$$= 28.6 \text{ barrels/day maximum}$$

When combined, the total fuel consumption is less than the PSD requirement of 144 barrels per day.

This condition limits the combined daily fuel consumption of 972 barrels per day for steam generator SG60 through SG64 (C-1070-2 through -5, and -9). Steam generators (SG60, 61, 62, 63 and 64) are not a part of facility C-1121 or C-1070 or have been made “dead” and therefore will not be addressed.

This condition limits the combined daily fuel consumption of 96 barrels per day for heater treaters, HT658 (C-1121-100; formerly C-1070-6) and HT659 (C-1121-105; formerly C-1070-11). For HT658 (C-1121-100) and HT659 (C-1121-105), this requirement has been met by the burners inherent fuel burning capabilities limit of 3.0 and 4.0 MMBtu/hr respectively and fuel heating value of 150 MMBtu/1000 gal (AP-42, Table 1.3-2)

$$= (3.0 + 4.0) \text{ MMBtu/hr} \times 24 \text{ hr/day} \times \text{gal}/0.15 \text{ MMBtu} \div 42 \text{ gal/barrel}$$

$$= 26.7 \text{ barrels/day maximum}$$

When combined, the total fuel consumption is less than the PSD requirement of 96 barrels per day.

#### (IX.B) Special Conditions: Fuel Sulfur Content

This condition provides an oil sulfur concentration limit of 1.5% by weight, sulfur concentration test methods, heating value test methods, and record keeping requirements for steam generators SG124 through SG139 and SG60 through SG64 and heater treaters HT658, HT659, HT 804, HT806, HT 808.

Steam generators SG 60, SG61, SG62, SG63, SG64, SG65, SG124 through SG139 and heater treater HT806 are no longer a part of facility C-1121 or C-1070 or have been made “dead” and therefore were not addressed.

For heater treaters HT658 (C-1121-100), HT804 (C-1121-101), HT659 (C-1121-105) and HT808 (C1121-106), Condition 2 limits sulfur fuel content to not exceed 0.8 % by weight and will subsume these PSD requirements.

The following calculations compare the current potential SO<sub>x</sub> emission for the largest oil fired unit and the PSD requirements. It shows the permitted emission limit is the most stringent requirement and subsumes even the 0.8% sulfur requirement. Assuming all SO<sub>x</sub> emission are from the fuel, fuel oil weights 60 lb/ft<sup>3</sup>, a gallon is 231 in<sup>3</sup> = 0.1337 ft<sup>3</sup> and a gallon has 0.15 MMBtu heating value:

$$= \frac{4 \text{ MMBtu}}{\text{hr}} \times \frac{\text{gallon}}{0.15 \text{ MMBtu}} \times \frac{0.1337 \text{ ft}^3}{\text{gallon}} \times \frac{60 \text{ lb fuel}}{\text{ft}^3} \times \frac{0.008 \text{ lb S}}{\text{lb fuel}}$$

$$= \frac{1.7 \text{ lb S}}{\text{hr}} = \frac{3.4 \text{ lb} - \text{SO}_2}{\text{hr}} < \frac{200 \text{ lb}}{\text{hr}} \quad (\text{District Rule 4301, Section 5.2.1})$$

$$= \frac{4 \text{ MMBtu}}{\text{hr}} \times \frac{0.83 \text{ lb} - \text{SO}_x}{\text{MMBtu}} = \frac{3.3 \text{ lb} - \text{SO}_x}{\text{hr}} < \frac{3.4 \text{ lb} - \text{SO}_2}{\text{hr}}$$

Other template conditions have been added that also provide sulfur concentration test methods, heating value test methods, and record keeping requirements. The permit conditions listed below assure compliance with the PSD requirement of 1.5% sulfur by weight.

Permit Unit	Condition
-100-5, -101-5, -105-5 & -106-5	2, 3, 4, 5, 7 & 9 through 14

(IX.C.1 and IX.C.2) Special Conditions: Flue Gas Desulfurization

These conditions require the installation of operable scrubbers on new steam generators SG124 through SG139 and for existing steam generators SG55, and SG61. Steam generators SG55, SG61, SG62, SG124 and SG125 through SG139 are no longer a part of facility C-1121 or C-1070 or have been made “dead” and therefore were not addressed.

(IX.C.3) Special Conditions: Emission Limits for SO<sub>2</sub>

This condition requires sulfur emission concentration to 0.063 lb-SO<sub>x</sub>/MMBtu for steam generators SG124 through SG139, SG55, and SG61.

Steam generators SG55, SG61, SG124 through SG139 and are not in this facility or have been made “dead” and therefore were not addressed.

(IX.D) Special Condition: Hydrocarbon Recovery System

Previous to transferring this equipment to AERA, Monterey Resources Inc. has installed hydrocarbon vapor recovery systems having a collection efficiency of at least 90% on the new wells authorized by the NSR-4-4-8, SJ-77-45. These modifications has shut in or otherwise reduced the VOC emissions by at least 99%, from 24 wells on the Penn-Zier source and 18 wells on the Premier source. Compliance with this condition is assured by conditions 4, 8 and 9 of the requirements for permit units -114-1 and 116-1 and by conditions 1, 7 and 8 for permit unit –115-1.

(IX.E) Special Conditions: Road Paving

The road paving required by NSR-4-4-8, SJ-77-45 was completed and maps showing the location of the roads were submitted. This requirement is obsolete.

(IX.F) Special Conditions: NO<sub>x</sub> Control Requirements

These conditions are startup conditions and therefore are obsolete.

(IX.G) Special Conditions: Emission Limits for NO<sub>x</sub>

This condition requires that NO<sub>2</sub> emissions shall not exceed 0.277 lb/MMBtu for steam generators SG124 through SG139. Steam generators SG124 through SG139 are not a part of facility C-1121 or C-1070 or were made “dead” and were therefore not addressed.

For heater treaters HT804, HT806, and HT808 (C-1121-101, N/A, and -106), this condition also requires that NO<sub>2</sub> emissions shall not exceed 0.38 lb/MMBtu. Heater treater HT806 is not a part of facility C-1121 or C-1070 and was therefore not addressed. PTO condition #7 had erroneously been rounded up to 0.4 lb/MMBtu for these two permit units by the District without ATC submittal. They have been corrected to 0.38 lb/MMBtu in condition #5 of the requirements for these permit units. The permit conditions listed below assure compliance with the PSD requirement of 0.38 lb/MMBtu.

Permit Unit	Condition
-101-5, -106-5	3,4, 7, 15 & 16

(IX.H.1) Special Conditions: Startup and Annual Performance Tests

Initial startup and annual performance tests for NO<sub>x</sub>, SO<sub>2</sub> and hydrocarbon must be conducted and reported in accordance with the test methods set for the in 40 CFR 60, Part 60.8 and Appendix A.

Steam generators SG124 through SG135 and heater treater HT806 are not part of facility C-1121 or C-1070 or have been made “dead” and were therefore not addressed. The required startup tests for NO<sub>x</sub>, SO<sub>x</sub>, and hydrocarbons have already been done for the remaining units and are therefore obsolete.



(IX.H.2) Special Conditions: Performance Tests Methods

For NOx performance test shall be conducted using test methods EPA 1 – 4 and 7. For SOx performance test shall be conducted using test methods EPA 1 – 4 and 8. Performance tests for hydrocarbon shall be conducted using procedures approved in advance by the EPA in writing. Furthermore the EPA and APCO must be notified at least 30 day prior to conduction such tests.

Steam generators SG55 and SG124 were made “dead” and these requirements were therefore not addressed. The test method and frequency requirements for heater treater HT804 (C-1121-101) HT808 (C-1121-106) have been addressed by the following permit conditions:

Permit Unit	Condition
-101-5 & -106-5	17

VOC test method and frequency requirements for well vent vapor recovery systems have been subsumed by condition 12 of the requirements for permit units -114-1 and -116-1 and by condition 13 of the requirements for permit unit –115-1.

(X.) Special Conditions: Agency Notification

This condition is extraneous due to the fact that the District is not authorized to modify PSD permits and was not included in the requirements of this facility.

## X. PERMIT SHIELD

A permit shield legally protects a facility from enforcement of the shielded regulations when a source is in compliance with the terms and conditions of the Operating Permit. Compliance with the terms and conditions of the Operating Permit is considered compliance with all applicable requirements upon which those conditions are based, including those that have been subsumed.

### A. Requirements Addressed by Model General Permit Templates

By submitting model general permit template SJV-UM-0-0, the applicant has requested that a permit shield be granted for all the applicable requirements identified by the template. Therefore, the permit shield as granted in the model general permit template, is included as conditions 38 and 39 of the facility-wide requirements.

By submitting model general permit template SJV-BSG-17, the applicant has requested that a permit shield be granted for all the applicable requirements identified by the template. Therefore, the permit shield as granted in the model general permit template, is included as follows:

Permit Unit	Condition
-9-5, -10-5, -13-5 through -16-5	33 through 35
-11-5,	24 through 26
-17-6 through -19-6, -41-6	27 through 29
-23-3	10 through 12

By submitting model general permit template SJV-WV-1-0, the applicant has requested that a permit shield be granted for all the applicable requirements identified by the template. Therefore, the permit shield as granted in the model general permit template, is included as conditions 9 through 11 of the template requirements for units -114-1 and -116-1.

## **B. Requirements not Addressed by Model General Permit Template**

The applicant is requesting a permit shield for each of the following requirements:

### **1. 40 CFR Subpart K and Kb**

Permit shield conditions include a concise basis for the shield based on the recently approved Rule 2520.

Permit Unit	Condition
-75-1 and -76-1	8
-79-1	6

### **2. 40 CFR Subpart K, Ka and Kb**

Permit shield conditions include a concise basis for the shield based on the recently approved Rule 2520.

Permit Unit	Condition
-45-2	21
-46-1	9
-82-1 through -87-1	5
-74-1 through -78-1	8
-88-1 through -91-1	4
-117-1, -119-1, -123-1, -124-1, -125-1, -128-1, -131-1 through -140-1, -142-1 through -145-1, -147-1, -149-1 through -150-1, -154-1, -155-1, -157-1 through -160-1	6
-162-1	9
-161-1, -163-1, -164-1 and -166-1	8

### 3. 40 CFR 63 Subparts CC, I, F

40 CFR 63 specifies national emission standards for hazardous air pollutants (NESHAP) for certain source categories, which may emit designated hazardous air pollutants (HAPs).

- 40 CFR 63 Subpart CC, contains NESHAPs for refinery process units at establishments primarily engaged in petroleum refining, as defined in standard industrial classification code (SIC) 2911. The tanks qualifying for this template are located at oil production facilities and are not subject to requirements at 40 CFR 63 Subpart CC.
- 40 CFR 63 Subpart F contains NESHAPs for organic hazardous air pollutants (HAPs) from the synthetic organic chemical manufacturing industry (SOCMI). Chemical manufacturing process units, manufacturing or otherwise using of HAPs are subject to regulation under Subpart F. The tanks are located at oil production facilities and are not used in the SOCMI. Therefore, the tanks are not subject to requirements at 40 CFR 63 Subpart F
- 40 CFR 63 Subpart I contains NESHAPs for certain processes subject to negotiated requirements for equipment leaks. Processes listed in 40 CFR 63.190 are subject to regulation under Subpart I. Oil production tanks are not listed in 40 CFR 63.190. Consequently, the oil production tanks are not subject to requirement at 40 CFR 63 Subpart I.

A permit shield is being granted for these requirements for the following permit units, because these requirements are not applicable.

Permit Unit	Condition
-117-1, -119-1, -123-1, -124-1, -125-1, -128-1, -131-1 through -140-1, -142-1 through -145-1, -147-1, -149-1 through -150-1, -154-1, -155-1, -157-1 through -160-1	7
-162-1	10
-161-1, -163-1, -164-1 and -166-1	9

#### 4. **County Rule 108 and 108.1 or District Rule 1080 and 1081**

Compliance with this requirement was addressed in Section IX of this document and is assured by the following conditions of the requirements for these permit units.

- a. Cogeneration Gas Turbine (-33-2 and -34-2)

Permit Unit	Condition
-33-2 & -34-2	8

Therefore, a permit shield is being granted for these requirements as listed in the following conditions.

Permit Unit	Condition
-33-2 & -34-2	15

- b. Vapor Recovery (-115-1)

Permit Unit	Condition
-115-1	3

Therefore, a permit shield is being granted for these requirements as listed in the following conditions.

Permit Unit	Condition
-115-1	12

## 5. **District Rule 4201**

Compliance with this requirement was addressed in Section IX of this document and is assured by the following conditions of the requirements for these permit units.

- a. Diatomaceous Earth Silo (-36-1)

Permit Unit	Condition
-36-1	2

Therefore, a permit shield is being granted for these requirements as listed in the following conditions.

Permit Unit	Condition
-36-1	6

## 6. **District Rule 4623**

Compliance with this requirement was addressed in Section IX of this document and is assured by the following conditions of the requirements for these permit units.

- a. Tanks (-74-1 through -78-1, -82-1 through -87-1, -88-1 through -91-1, -117-1, -119-1, -123-1, -124-1, -125-1, -128-1, -131-1 through -140-1, -142-1 through -145-1, -147-1, -149-1 through -150-1, -154-1, -155-1, -157-1 through -160-1)

Permit Unit	Condition
-74-1 through -78-1	1 and 3
-82-1 through -87-1	1
-88-1 through -91-1	1
-117-1, -119-1, -123-1, -124-1, -125-1, -128-1, -131-1 through -140-1, -142-1 through -145-1, -147-1, -149-1 through -150-1, -154-1, -155-1, -157-1 through -160-1	1 and 2

A permit shield is being granted for these requirements for the following permit units, because these requirements are not applicable.

Permit Unit	Condition
-74-1 through -78-1	6
-82-1 through -87-1	4
-88-1 through -91-1	3
-117-1, -119-1, -123-1, -124-1, -125-1, -128-1, -131-1 through -140-1, -142-1 through -145-1, -147-1, -149-1 through -150-1, -154-1, -155-1, -157-1 through -160-1	4
-162-1	7
-161-1, -163-1, -164-1, -166-1	6

Compliance with this requirement was addressed in Section IX of this document and is assured by the following conditions of the requirements for these permit units.

Permit Unit	Conditions
-45-2	2 through 5 and 15 through 18
-46-1	1, 2, 6 and 7

Therefore, a permit shield is being granted for this requirement in the following conditions:

Permit Unit	Condition
-45-2	20
-46-1	8

## 7. District Rule 4661

The provisions of this rule are limited to organic solvents. Organic solvents are defined in this rule as organic materials which are liquids at standard conditions and which are used as desolates, viscosity reducers or cleaning agents. These tanks are located at oil production facilities, upstream of lease custody units and are used to store crude oil. Therefore, a permit shield is being granted for this requirement in the following conditions.

Permit Unit	Condition
-45-2	22
-46-1	10
-72-1, -73-1	3
-74-1 through -78-1	7
-82-1 through -87-1	6
-88-1 through -91-1	5
-117-1, -119-1, -123-1, -124-1, -125-1, -128-1, -131-1 through -140-1, -142-1 through -145-1, -147-1, -149-1 through -150-1, -154-1, -155-1, -157-1 through -160-1	5
-162-1	8
-161-1, -163-1, -164-1 and -166-1	7

#### 8. District Rule 4801

A permit shield is being granted from these requirements in the following permit units because they are not applicable.

Permit Unit	Condition
-45-2	22
-46-1	10
-72-1, -73-1	3
-74-1 through -78-1	7
-82-1 through -87-1	6
-88-1 through -91-1	5
-117-1 through -140-1, -142-1 through -147-1, -149-1 through -150-1, -152-1 through -155-1, -157-1 through -160-1	5
-162-1	8
-161-1, -163-1, -164-1 and -166-1	7

## **XI. PERMIT CONDITIONS**

See attached draft Operating Permit.



# **Attachment A**

## **Equipment Listing**

# **Attachment B**

## **Exempt Equipment Listings And Activities Listings**

The following exempt equipment was identified by the applicant on TVFORM-003, Insignificant Activities

<b>Exemption Category</b>	<b>Rule 2020 Citation</b>	<b>✓</b>
Structure or incinerator associated with a structure designed as a dwelling for 4 families or less.	4.2.3	
Use of less than 2 gal/day of graphic arts materials.	5.4	
Natural gas or LPG-fired boilers or other indirect heat transfer units of 5 MMBtu/hr or less.	5.1.1	✓
Piston-type internal combustion engine with maximum continuous rating of 50 braking horsepower (bhp) or less.	5.1.2	✓
Gas turbine engines with maximum heat input rating of 3 MMBtu/hr or less.	5.1.3	
Space heating equipment other than boilers.	5.1.4	✓
Locomotives, airplanes, and watercraft used to transport passengers or freight.	5.2	
Cooling towers with a circulation rate less than 10,000 gal/min.	5.3	
Equipment at retail establishments used to prepare food for human consumption.	5.5.1	
Ovens at bakeries with total daily production less than 1,000 pounds and exempt by Section 5.1.1.	5.5.2	
Equipment used exclusively for extruding or compression molding of rubber or plastics, where no plasticizer or blowing agent is used.	5.6	
Containers used to store clean produced water.	5.7.1	✓
Containers $\leq 100$ bbl used to store oil with specific gravity $\geq 0.8762$ .	5.7.2	✓
Containers $\leq 100$ bbl installed prior to 6/1/89 used to store oil with specific gravity $\geq 0.8762$ .	5.7.3	✓
Brazing, soldering, or welding equipment.	5.10.1	✓
Fugitive emissions sources associated with exempt equipment.	5.10.3	✓
Equipment used to compress natural gas.	5.10.2	✓
Containers with a capacity $\leq 250$ gallons used to store organic material where the actual storage temperature $< 150$ F.	5.7.4	✓
Containers used to store unheated organic material with an initial boiling point $\geq 302$ F.	5.7.5	✓
Containers used to store fuel oils or non-air-blown asphalt with specific gravity $\geq 0.9042$ .	5.7.6	
Containers used to store petroleum distillates used as motor fuel with specific gravity $\geq 0.8251$ .	5.7.7	✓
Containers used to store refined lubricating oils.	5.7.8	✓

<b>Exemption Category</b>	<b>Rule 2020 Citation</b>	<b>✓</b>
Unvented pressure vessels used exclusively to store liquefied gases or associated with exempt equipment.	5.7.9 or 5.10.4	✓
Portable tanks used exclusively to store produced fluids for ≤ six months.	5.7.10	✓
Mobile transport tanks on vehicles for delivery of VOCs.	5.7.11	✓
Loading racks used for the transfer of less than 4,000 gal/day of unheated organic material with initial boiling point ≥ 302 F or of fuel oil with specific gravity ≥ 0.8251.	5.8.1.1	
Loading racks used for the transfer of asphalt, crude or residual oil stored in exempt tanks, or crude oil with specific gravity ≥ 0.8762.	5.8.1.2	
Equipment used to apply architectural coatings.	5.9.1	
Equipment used exclusively for the transfer of refined lubricating oil.	5.8.2	
Unheated, non-conveyorized degreasers < 10 ft <sup>2</sup> open area; using solvents with initial boiling point ≥ 248 F; and < 25 gal/yr evaporative losses.	5.9.2	
Pits and Ponds as defined in Rule 1020.	5.10.6	✓
Non-structural repairs & maintenance to permitted equipment.	4.2.6	✓
Emissions less than 2 lb/day from units not included above.	4.2.1	✓

**ATTACHMENT C**

**CURRENT DISTRICT  
ATCs AND PTOs**

# **Attachment D**

## **PSD Permit**

**Attachment E**

**EPA COMMENTS**

**AND**

**DISTRICT RESPONSE**

# **EPA COMMENTS AND DISTRICT RESPONSE**

The following EPA comments were received regarding the proposed Title V Operating Permit for AERA Energy LLC - Heavy Oil Central Oilfields (District facility #C-1121). These comments are encapsulated below followed by the District's response. A copy of the telcon summary with EPA and the District dated 10/11/01 and the agreements committed to in the follow-up email and attached document is available at the District.

- 1. EPA Comments - Information Described in the District's October 11, 2001 telephone conversation with EPA representative, Ed Pike.**
  - a) Requested MACT applicability to this facility be addressed in the engineering evaluation.
  - b) Requested making the condition for annual source test of gas fired turbines (C-1121-33 and -34) federally enforceable under Rule 2520, Section 9.4
  - c) Requested adding verbiage to well vapor recovery permits (C-1121-38, -39 and -114 through -116) to record when wells casing vents are "shut in" to monitor emissions of any down-line storage tanks that do not have vapor recovery systems.
  - d) Requested that permits with permit shields for rules that are not applicable (such as some tanks permits) include condition to clearly state the exemption applicability to the permit unit.
- 2. The District will make the following revisions to the proposed permits:**
  1. The District commits to addressing the MACT applicability in the Engineering Evaluation (see section IX.B.9).
  2. Condition 5 of the turbine emission units (-33-2 and -34-2) will be changed to a federally enforceable condition.
  3. In condition 5 of the well vent emission units (-38-2, -39) and condition 2 of the well vent emission units (-114 through 116), the first sentence will add:  
  
*"...system and which well casing vents are shut-in. The well roster..."* (See Section IX.B.1.r, .bb and .cc)



4. Permit shield conditions have been changed to include a concise basis for the shield based on the recently approved Rule 2520.